Byron 1

1Q/2000 Performance Indicators

Licensee's General Comments: 1. An initiative to ensure NEI 99-02 guidelines are consistently applied to Safety System Unavailability (SSU) performance indicators amongst the 10 Commonwealth Edison Company plants was completed. No change to the historical SSU data was required. 2. The first quarter 2000 performance indicator data elements were prepared in accordance with NEI 99-02 {Draft Revision D} and Regulatory Issues Summary 2000-08.

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Unplanned scrams	0	1.0	0	0	0
Critical hours	2042.5	1519.3	2208.0	2209.0	2184.0
Indicator value	**0**	**0.9**	**0.9**	**0.9**	**0.9**

Licensee Comments:

4Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

3Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Scrams	0	0	0	0	0
Indicator value				**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Unplanned power changes	1.0	0	0	0	0
Critical hours	2042.5	1519.3	2208.0	2209.0	2184.0
Indicator value	**3.2**	**2.6**	**1.8**	**0.9**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Train 1					
Planned unavailable hours	37.10	3.40	21.30	16.60	0
Unplanned unavailable hours	27.40	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2184.00
Train 2					
Planned unavailable hours	45.90	77.90	0	1.00	14.60
Unplanned unavailable hours	18.80	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2184.00
Indicator value				**1.2%**	**1.1%**

Licensee Comments:

4Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

2Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the

indicator.

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Train 1					
Planned unavailable hours	24.40	0.60	18.20	1.00	2.00
Unplanned unavailable hours	51.40	0	5.80	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2042.50	1519.30	2208.00	2209.00	2184.00
Train 2					
Planned unavailable hours	58.90	36.40	25.20	1.30	0.80
Unplanned unavailable hours	42.00	9.40	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2042.50	1519.30	2208.00	2209.00	2184.00
Train 3					
Planned unavailable hours	20.00	0	33.10	0	0
Unplanned unavailable hours	0	0	22.70	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2042.50	1519.30	2208.00	2209.00	2184.00
Train 4					
Planned unavailable hours	17.00	0	0	0	0
Unplanned unavailable hours	13.60	0	0	0	0

Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2042.50	1519.30	2208.00	2209.00	2184.00
Indicator value				**0.7%**	**0.7%**

Licensee Comments:

1Q/00:

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the High Pressure Safety Injection system for Byron Unit 1. Data for the month of February 1999 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Train 1					
Planned unavailable hours	11.50	23.10	11.80	14.70	35.70
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2042.50	1519.30	2208.00	2209.00	2184.00
Train 2					
Planned unavailable hours	16.50	12.40	28.90	14.70	19.50
Unplanned unavailable hours	0	0	0	0	0

Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2042.50	1519.30	2208.00	2209.00	2184.00
Indicator value				**1.8%**	**1.7%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	**1Q/99**	**2Q/99**	**3Q/99**	**4Q/99**	**1Q/00**
Train 1					
Planned unavailable hours	1.80	34.70	2.80	3.80	2.40
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2184.00
Train 2					
Planned unavailable hours	33.70	2.90	2.00	2.00	61.50
Unplanned unavailable hours	0	0	0	0	6.60
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2184.00
Indicator value				**0.6%**	**0.7%**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Safety System Functional Failures	0	0	0	0	0
Indicator value	**4**	**3**	**1**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	4/99	5/99	6/99	7/99	8/99	9/99	10/99	11/99	12/99	1/00	2/00	3/00
Maximum activity	0.000195	0.000228	0.000395	0.000256	0.000289	0.000284	0.000303	0.000337	0.000359	0.000360	0.000387	0.000378
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	4/99	5/99	6/99	7/99	8/99	9/99	10/99	11/99	12/99	1/00	2/00	3/00
Maximum leakage	0.106	0.129	0.122	0.477	0.383	0.104	0.101	0.075	0.086	0.090	0.088	0.080
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.3**	**1.2**	**4.8**	**3.8**	**1.0**	**1.0**	**0.7**	**0.9**	**0.9**	**0.9**	**0.8**

Licensee Comments:

3/98: A revision has been made to previously submitted data for the Reactor Coolant System Identified Leak Rate (RCSL) performance indicator for Byron Unit 1. An incorrect value for maximum RCSL for March 1998 was previously reported. The change to the data does not affect the color of the indicator.

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Successful opportunities	0	54.0	39.0	4.0	63.0
Total opportunities	0	54.0	40.0	4.0	64.0
Indicator value				**99.1%**	**98.8%**

Licensee Comments:

4Q/99: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

3Q/99: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Participating Key personnel				56.0	61.0
Total Key personnel				60.0	62.0
Indicator value				**93.3%**	**98.4%**

Licensee Comments:

1Q/00: Frequently asked question (FAQ) #22 in FAQ log #3 was reviewed by Commonwealth Edison (ComEd) Company Emergency Planning management and it was determined that no historical data changes were required. Common guidance was developed and implemented at the 10 ComEd plants for the collection of first quarter 2000 Emergency Response Organization Drill Participation performance indicator data.

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Successful siren-tests	5740	5913	5996	5883	6000
Total sirens-tests	5922	6016	6110	5922	6110
Indicator value	**98.5%**	**98.4%**	**98.2%**	**98.2%**	**98.5%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
High radiation area occurrences	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0
Indicator value	**2**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
RETS/ODCM occurrences	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Notes

Protected Area Security Performance Index	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
IDS compensatory hours	715.00	203.70	330.00	57.60	57.60
CCTV compensatory hours	753.0	10.1	0.8	6.5	67.8
IDS normalization factor	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0
Index Value	**0.120**	**0.097**	**0.107**	**0.097**	**0.031**

Licensee Comments:

1Q/00:

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Program failures	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	1Q/99	2Q/99	3Q/99	4Q/99	1Q/00
Program Failures	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Last Modified: April 1, 2002

Byron 1

2Q/2000 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Unplanned scrams	1.0	0	0	0	0
Critical hours	1519.3	2208.0	2209.0	2184.0	2183.0
Indicator value	**0.9**	**0.9**	**0.9**	**0.9**	**0**

Licensee Comments:

4Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

3Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Scrams	0	0	0	0	0
Indicator value			**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Unplanned power changes	0	0	0	0	0
Critical hours	1519.3	2208.0	2209.0	2184.0	2183.0
Indicator value	**2.6**	**1.8**	**0.9**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Train 1					
Planned unavailable hours	3.40	21.30	16.60	0	13.40
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2184.00	2183.00
Train 2					
Planned unavailable hours	77.90	0	1.00	14.60	0
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2184.00	2183.00
Indicator value			**1.2%**	**1.1%**	**1.1%**

Licensee Comments:

4Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

2Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the

indicator.

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Train 1					
Planned unavailable hours	0.60	18.20	1.00	2.00	1.50
Unplanned unavailable hours	0	5.80	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	1519.30	2208.00	2209.00	2184.00	2183.00
Train 2					
Planned unavailable hours	36.40	25.20	1.30	0.80	1.00
Unplanned unavailable hours	9.40	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	1519.30	2208.00	2209.00	2184.00	2183.00
Train 3					
Planned unavailable hours	0	33.10	0	0	0
Unplanned unavailable hours	0	22.70	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	1519.30	2208.00	2209.00	2184.00	2183.00
Train 4					
Planned unavailable hours	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0

Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	1519.30	2208.00	2209.00	2184.00	2183.00
Indicator value			**0.7%**	**0.7%**	**0.5%**

Licensee Comments:

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the High Pressure Safety Injection system for Byron Unit 1. Data for the month of February 1999 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	**2Q/99**	**3Q/99**	**4Q/99**	**1Q/00**	**2Q/00**
Train 1					
Planned unavailable hours	23.10	11.80	14.70	35.70	7.20
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	1519.30	2208.00	2209.00	2184.00	2183.00
Train 2					
Planned unavailable hours	12.40	28.90	14.70	19.50	2.80
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0

Required hours	1519.30	2208.00	2209.00	2184.00	2183.00
Indicator value			**1.8%**	**1.7%**	**1.7%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Train 1					
Planned unavailable hours	34.70	2.80	3.80	2.40	20.20
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2184.00	2183.00
Train 2					
Planned unavailable hours	2.90	2.00	2.00	61.50	1.60
Unplanned unavailable hours	0	0	0	6.60	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2184.00	2183.00
Indicator value			**0.6%**	**0.7%**	**0.8%**

Licensee Comments:

2Q/00: Addition of 1.1 Planned Unavailability Hours from 5/02/00 on 1A Residual Heat Removal Train. This time is insignificant to the calculation of the Performance Indicator, and does not change the "color" of this indicator. A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

2Q/00: Addition of 1.1 Planned Unavailability Hours from 5/02/00 on 1A Residual Heat Removal Train. This time is insignificant to the calculation of the Performance Indicator, and does not change the "color" of this indicator.

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Safety System Functional Failures	0	0	0	0	0
Indicator value	**3**	**1**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	7/99	8/99	9/99	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00
Maximum activity	0.000256	0.000289	0.000284	0.000303	0.000337	0.000359	0.000360	0.000387	0.000378	0.000389	0.000414	0.000421
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	7/99	8/99	9/99	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00
Maximum leakage	0.477	0.383	0.104	0.101	0.075	0.086	0.090	0.088	0.080	0.081	0.091	0.128
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**4.8**	**3.8**	**1.0**	**1.0**	**0.7**	**0.9**	**0.9**	**0.9**	**0.8**	**0.8**	**0.9**	**1.3**

Licensee Comments:

3/98: A revision has been made to previously submitted data for the Reactor Coolant System Identified Leak Rate (RCSL) performance indicator for Byron Unit 1. An incorrect value for maximum RCSL for March 1998 was previously reported. The change to the data does not affect the color of the indicator.

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Successful opportunities	54.0	39.0	4.0	63.0	30.0
Total opportunities	54.0	40.0	4.0	64.0	30.0
Indicator value			**99.1%**	**98.8%**	**99.0%**

Licensee Comments:

2Q/00: Commonwealth Edison (ComEd) Company has reviewed the guidance for determining the number of opportunities for the Nuclear Regulatory Commission Drill, Exercise and Event (DEP) Performance Indicator 08. The process ComEd uses is to make a notification for a concurrent classification of General Emergency and an initial Protective Action Recommendation (PAR) for that classification and cannot be logically separated into two notifications. The notification is made via the same call to the same audience. Success criteria requires both the classification and PAR to be timely and accurate to count as a success. Therefore the notification is counted as one opportunity instead of two as suggested by the Nuclear Energy Institute.

2Q/00: Commonwealth Edison (ComEd) Company has reviewed the guidance for determining the number of opportunities for the Nuclear Regulatory Commission Drill, Exercise and Event (DEP) Performance Indicator 08. The process ComEd uses is to make a notification for a concurrent classification of General Emergency and an initial Protective Action Recommendation (PAR) for that classification and cannot be logically separated into two notifications. The notification is made via the same call to the same audience. Success criteria requires both the classification and PAR to be timely and accurate to count as a success. Therefore the notification is counted as one opportunity instead of two as suggested by the Nuclear Energy Institute. A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

3Q/99: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect

the color of the indicator.

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Participating Key personnel			56.0	61.0	68.0
Total Key personnel			60.0	62.0	72.0
Indicator value			**93.3%**	**98.4%**	**94.4%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Successful siren-tests	5913	5996	5883	6000	5915
Total sirens-tests	6016	6110	5922	6110	6016
Indicator value	**98.4%**	**98.2%**	**98.2%**	**98.5%**	**98.5%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
High radiation area occurrences	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
RETS/ODCM occurrences	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Notes

Protected Area Security Performance Index	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
IDS compensatory hours	203.70	330.00	57.60	57.60	57.60
CCTV compensatory hours	10.1	0.8	6.5	67.8	6.8
IDS normalization factor	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0
Index Value	**0.097**	**0.107**	**0.097**	**0.031**	**0.025**

Licensee Comments:

2Q/00: A clarification of Frequently Asked Question (ID #59) has been submitted to the Nuclear Energy Institute/Nuclear Regulatory Commission Task Forces. Commonwealth Edison (ComEd) Company's practice has been that if a zone is required to be declared inoperable for a compliance issue (associated with a Security Plan commitment), but the zone remains functional (capable of performing its intended function), then the hours associated with the compensatory posting are not counted as long as maintenance/test proves the zone to operable assuming that no corective maintenance was required. ComEd contends that if the zone tests acceptable per the standard test procedures there is no added value to have maintenance check operable equipment.

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Program failures	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
Program Failures	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: April 1, 2002

Byron 1

3Q/2000 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Unplanned scrams	0	0	0	0	0
Critical hours	2208.0	2209.0	2184.0	2183.0	2016.0
Indicator value	**0.9**	**0.9**	**0.9**	**0**	**0**

Licensee Comments:

4Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

3Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Scrams	0	0	0	0	0
Indicator value		**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Unplanned power changes	0	0	0	0	0
Critical hours	2208.0	2209.0	2184.0	2183.0	2016.0
Indicator value	**1.8**	**0.9**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Train 1					
Planned unavailable hours	21.30	16.60	0	13.40	23.50
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2208.00
Train 2					
Planned unavailable hours	0	1.00	14.60	0	0
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2208.00
Indicator value		**1.2%**	**1.1%**	**1.1%**	**1.2%**

Licensee Comments:

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

2Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the

indicator.

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Train 1					
Planned unavailable hours	18.20	1.00	2.00	1.50	14.00
Unplanned unavailable hours	5.80	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2016.02
Train 2					
Planned unavailable hours	25.20	1.30	0.80	1.00	1.10
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2016.02
Train 3					
Planned unavailable hours	33.10	0	0	0	0
Unplanned unavailable hours	22.70	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0

Required hours	2208.00	2209.00	2184.00	2183.00	2016.02
Train 4					
Planned unavailable hours	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2016.02
Indicator value		**0.7%**	**0.7%**	**0.5%**	**0.6%**

Licensee Comments:

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the High Pressure Safety Injection system for Byron Unit 1. Data for the month of February 1999 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	**3Q/99**	**4Q/99**	**1Q/00**	**2Q/00**	**3Q/00**
Train 1					
Planned unavailable hours	11.80	14.70	35.70	7.20	1.30
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2016.02
Train 2					

Planned unavailable hours	28.90	14.70	19.50	2.80	2.70
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2016.02
Indicator value		**1.8%**	**1.7%**	**1.7%**	**0.9%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Train 1					
Planned unavailable hours	2.80	3.80	2.40	20.20	25.60
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2208.00
Train 2					
Planned unavailable hours	2.00	2.00	61.50	1.60	2.10
Unplanned unavailable hours	0	0	6.60	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2208.00

Indicator value		**0.6%**	**0.7%**	**0.8%**	**0.6%**

Licensee Comments:

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

2Q/00: Addition of 1.1 Planned Unavailability Hours from 5/02/00 on 1A Residual Heat Removal Train. This time is insignificant to the calculation of the Performance Indicator, and does not change the "color" of this indicator. A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

2Q/00: Addition of 1.1 Planned Unavailability Hours from 5/02/00 on 1A Residual Heat Removal Train. This time is insignificant to the calculation of the Performance Indicator, and does not change the "color" of this indicator.

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Safety System Functional Failures	0	0	0	0	0
Indicator value	**1**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00
Maximum activity	0.000303	0.000337	0.000359	0.000360	0.000387	0.000378	0.000389	0.000414	0.000421	0.000417	0.000742	0.000406
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00
Maximum leakage	0.101	0.075	0.086	0.090	0.088	0.080	0.081	0.091	0.128	0.277	0.288	0.273
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.0**	**0.7**	**0.9**	**0.9**	**0.9**	**0.8**	**0.8**	**0.9**	**1.3**	**2.8**	**2.9**	**2.7**

Licensee Comments:

3/98: A revision has been made to previously submitted data for the Reactor Coolant System Identified Leak Rate (RCSL) performance indicator for Byron Unit 1. An incorrect value for maximum RCSL for March 1998 was previously reported. The change to the data does not affect the color of the indicator.

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Successful opportunities	39.0	4.0	63.0	30.0	49.0
Total opportunities	40.0	4.0	64.0	30.0	50.0
Indicator value		**99.1%**	**98.8%**	**99.0%**	**98.8%**

Licensee Comments:

3Q/00: Third Quarter 2000 data collection process included a change based on FAQ 195 to count a notification opportunity that included both a classification and a Protective Action Recommendation as two notification opportunities. A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

3Q/00: Third Quarter 2000 data collection process included a change based on FAQ 195 to count a notification opportunity that included both a classification and a Protective Action Recommendation as two notification opportunities.

2Q/00: Commonwealth Edison (ComEd) Company has reviewed the guidance for determining the number of opportunities for the Nuclear Regulatory Commission Drill, Exercise and Event (DEP) Performance Indicator 08. The process ComEd uses is to make a notification for a concurrent classification of General Emergency and an initial Protective Action Recommendation (PAR) for that classification and cannot be logically separated into two notifications. The notification is made via the same call to the same audience. Success criteria requires both the classification and PAR to be timely and accurate to count as a success. Therefore the notification is counted as one opportunity instead of two as suggested by the Nuclear Energy Institute. A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

3Q/99: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator.

Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Participating Key personnel		56.0	61.0	68.0	63.0
Total Key personnel		60.0	62.0	72.0	65.0
Indicator value		**93.3%**	**98.4%**	**94.4%**	**96.9%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Successful siren-tests	5996	5883	6000	5915	5821
Total sirens-tests	6110	5922	6110	6016	5922
Indicator value	**98.2%**	**98.2%**	**98.5%**	**98.5%**	**98.5%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
High radiation area occurrences	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
RETS/ODCM occurrences	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Notes

Protected Area Security Performance Index	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
IDS compensatory hours	330.00	57.60	57.60	57.60	93.10
CCTV compensatory hours	0.8	6.5	67.8	6.8	0
IDS normalization factor	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0
Index Value	**0.107**	**0.097**	**0.031**	**0.025**	**0.015**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Program failures	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	3Q/99	4Q/99	1Q/00	2Q/00	3Q/00
Program Failures	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: March 29, 2002

Byron 1

4Q/2000 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Unplanned scrams	0	0	0	0	0
Critical hours	2209.0	2184.0	2183.0	2016.0	1979.4
Indicator value	**0.9**	**0.9**	**0**	**0**	**0**

Licensee Comments:

4Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

3Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Scrams	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Unplanned power changes	0	0	0	0	1.0
Critical hours	2209.0	2184.0	2183.0	2016.0	1979.4
Indicator value	**0.9**	**0**	**0**	**0**	**0.8**

Licensee Comments:

4Q/00:

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Train 1					
Planned unavailable hours	16.60	0	13.40	23.50	6.60
Unplanned unavailable hours	0	0	0	0	54.20
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00
Train 2					
Planned unavailable hours	1.00	14.60	0	0	0
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00
Indicator value	**1.2%**	**1.1%**	**1.1%**	**1.2%**	**1.3%**

Licensee Comments:

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the month of December 2000 was revised as appropriate for consistency with FAQ 289, which was posted on November 15, 2001. The change to the data does not affect the color of the indicator.

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

2Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Train 1					
Planned unavailable hours	1.00	2.00	1.50	14.00	0.60
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35
Train 2					
Planned unavailable hours	1.30	0.80	1.00	1.10	0.40
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35
Train 3					

Planned unavailable hours	0	0	0	0	23.10
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35
Train 4					
Planned unavailable hours	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35
Indicator value	**0.7%**	**0.7%**	**0.5%**	**0.6%**	**0.6%**

Licensee Comments:

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the High Pressure Safety Injection system for Byron Unit 1. Data for the month of February 1999 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Train 1					
Planned unavailable hours	14.70	35.70	7.20	1.30	1.60
Unplanned unavailable hours	0	0	0	0	0

Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35
Train 2					
Planned unavailable hours	14.70	19.50	2.80	2.70	1.30
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35
Indicator value	**1.8%**	**1.7%**	**1.7%**	**0.9%**	**0.8%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Train 1					
Planned unavailable hours	3.80	2.40	20.20	25.60	3.50
Unplanned unavailable hours	0	0	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00
Train 2					
Planned unavailable hours	2.00	61.50	1.60	2.10	4.50

Unplanned unavailable hours	0	6.60	0	0	0
Fault exposure hours	0	0	0	0	0
Effective Reset hours	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00
Indicator value	**0.6%**	**0.7%**	**0.8%**	**0.6%**	**0.6%**

Licensee Comments:

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

2Q/00: Addition of 1.1 Planned Unavailability Hours from 5/02/00 on 1A Residual Heat Removal Train. This time is insignificant to the calculation of the Performance Indicator, and does not change the "color" of this indicator. A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00

Safety System Functional Failures	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/00**	**2/00**	**3/00**	**4/00**	**5/00**	**6/00**	**7/00**	**8/00**	**9/00**	**10/00**	**11/00**	**12/00**
Maximum activity	0.000360	0.000387	0.000378	0.000389	0.000414	0.000421	0.000417	0.000742	0.000406	0.000224	0.000234	0.000251
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00
Maximum leakage	0.090	0.088	0.080	0.081	0.091	0.128	0.277	0.288	0.273	0.296	0.377	0.368
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.9**	**0.9**	**0.8**	**0.8**	**0.9**	**1.3**	**2.8**	**2.9**	**2.7**	**3.0**	**3.8**	**3.7**

Licensee Comments:

3/98: A revision has been made to previously submitted data for the Reactor Coolant System Identified Leak Rate (RCSL) performance indicator for Byron Unit 1. An incorrect value for maximum RCSL for March 1998 was previously reported. The change to the data does not affect the color of the indicator.

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Successful opportunities	4.0	63.0	30.0	49.0	0
Total opportunities	4.0	64.0	30.0	50.0	0
Indicator value	**99.1%**	**98.8%**	**99.0%**	**98.8%**	**98.8%**

Licensee Comments:

3Q/00: Third Quarter 2000 data collection process included a change based on FAQ 195 to count a notification opportunity that included both a classification and a Protective Action Recommendation as two notification opportunities. A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

2Q/00: Commonwealth Edison (ComEd) Company has reviewed the guidance for determining the number of opportunities for the Nuclear Regulatory Commission Drill, Exercise and Event (DEP) Performance Indicator 08. The process ComEd uses is to make a notification for a concurrent classification of General Emergency and an initial Protective Action Recommendation (PAR) for that classification and cannot be logically separated into two notifications. The notification is made via the same call to the same audience. Success criteria requires both the classification and PAR to be timely and accurate to count as a success. Therefore the notification is counted as one opportunity instead of two as suggested by the Nuclear Energy Institute. A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

3Q/99: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Participating Key personnel	56.0	61.0	68.0	63.0	63.0
Total Key personnel	60.0	62.0	72.0	65.0	65.0
Indicator value	**93.3%**	**98.4%**	**94.4%**	**96.9%**	**96.9%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Successful siren-tests	5883	6000	5915	5821	5864
Total sirens-tests	5922	6110	6016	5922	5922
Indicator value	**98.2%**	**98.5%**	**98.5%**	**98.5%**	**98.5%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
High radiation area occurrences	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
RETS/ODCM occurrences	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
IDS compensatory hours	57.60	57.60	57.60	93.10	17.43
CCTV compensatory hours	6.5	67.8	6.8	0	37.5
IDS normalization factor	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0
Index Value	**0.097**	**0.031**	**0.025**	**0.015**	**0.016**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Program failures	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00
Program Failures	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Last Modified: March 28, 2002

Byron 1

1Q/2001 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Unplanned scrams	0	0	0	0	0	0
Critical hours	2209.0	2184.0	2183.0	2016.0	1979.4	2160.0
Indicator value	**0.9**	**0.9**	**0**	**0**	**0**	**0**

Licensee Comments:

4Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

3Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Scrams	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Unplanned power changes	0	0	0	0	1.0	0
Critical hours	2209.0	2184.0	2183.0	2016.0	1979.4	2160.0
Indicator value	**0.9**	**0**	**0**	**0**	**0.8**	**0.8**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Train 1						
Planned unavailable hours	16.60	0	13.40	23.50	6.60	0
Unplanned unavailable hours	0	0	0	0	54.20	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00
Train 2						
Planned unavailable hours	1.00	14.60	0	0	0	44.00
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00
Indicator value	**1.2%**	**1.1%**	**1.1%**	**1.2%**	**1.3%**	**1.4%**

Licensee Comments:

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the month of December 2000 was revised as appropriate for consistency with FAQ 289, which was posted on November 15, 2001. The change to the data does not affect the color of the indicator.

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

2Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Train 1						
Planned unavailable hours	1.00	2.00	1.50	14.00	0.60	13.60
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00
Train 2						
Planned unavailable hours	1.30	0.80	1.00	1.10	0.40	0.93
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00
Train 3						

Planned unavailable hours	0	0	0	0	23.10	0
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00
Train 4						
Planned unavailable hours	0	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00
Indicator value	**0.7%**	**0.7%**	**0.5%**	**0.6%**	**0.6%**	**0.5%**

Licensee Comments:

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the High Pressure Safety Injection system for Byron Unit 1. Data for the month of February 1999 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Train 1						
Planned unavailable hours	14.70	35.70	7.20	1.30	1.60	2.00
Unplanned unavailable hours	0	0	0	0	0	0

Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00
Train 2						
Planned unavailable hours	14.70	19.50	2.80	2.70	1.30	25.80
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00
Indicator value	**1.8%**	**1.7%**	**1.7%**	**0.9%**	**0.8%**	**0.8%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Train 1						
Planned unavailable hours	3.80	2.40	20.20	25.60	3.50	0.90
Unplanned unavailable hours	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00
Train 2						
Planned unavailable hours	2.00	61.50	1.60	2.10	4.50	0.40

Unplanned unavailable hours	0	6.60	0	0	0	0
Fault exposure hours	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00
Indicator value	**0.6%**	**0.7%**	**0.8%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments:

1Q/01: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

2Q/00: Addition of 1.1 Planned Unavailability Hours from 5/02/00 on 1A Residual Heat Removal Train. This time is insignificant to the calculation of the Performance Indicator, and does not change the "color" of this indicator. A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Safety System Functional Failures	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00
Maximum activity	0.000303	0.000337	0.000359	0.000360	0.000387	0.000378	0.000389	0.000414	0.000421	0.000417	0.000742	0.000406
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**

Reactor Coolant System Activity	10/00	11/00	12/00	1/01	2/01	3/01
Maximum activity	0.000224	0.000234	0.000251	0.000265	0.000432	0.000292
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00
Maximum leakage	0.101	0.075	0.086	0.090	0.088	0.080	0.081	0.091	0.128	0.277	0.288	0.273
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.0**	**0.7**	**0.9**	**0.9**	**0.9**	**0.8**	**0.8**	**0.9**	**1.3**	**2.8**	**2.9**	**2.7**

Reactor Coolant System Leakage	10/00	11/00	12/00	1/01	2/01	3/01
Maximum leakage	0.296	0.377	0.368	0.471	0.360	0.392
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**3.0**	**3.8**	**3.7**	**4.7**	**3.6**	**3.9**

Licensee Comments:

3/98: A revision has been made to previously submitted data for the Reactor Coolant System Identified Leak Rate (RCSL) performance indicator for Byron Unit 1. An incorrect value for maximum RCSL for March 1998 was previously reported. The change to the data does not affect the color of the indicator.

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Successful opportunities	4.0	63.0	30.0	49.0	0	14.0
Total opportunities	4.0	64.0	30.0	50.0	0	16.0
Indicator value	**99.1%**	**98.8%**	**99.0%**	**98.8%**	**98.8%**	**98.1%**

Licensee Comments:

1Q/01: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

3Q/00: Third Quarter 2000 data collection process included a change based on FAQ 195 to count a notification opportunity that included both a classification and a Protective Action Recommendation as two notification opportunities. A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

2Q/00: Commonwealth Edison (ComEd) Company has reviewed the guidance for determining the number of opportunities for the Nuclear Regulatory Commission Drill, Exercise and Event (DEP) Performance Indicator 08. The process ComEd uses is to make a notification for a concurrent classification of General Emergency and an initial Protective Action Recommendation (PAR) for that classification and cannot be logically separated into two notifications. The notification is made via the same call to the same audience. Success criteria requires both the classification and PAR to be timely and accurate to count as a success. Therefore the notification is counted as one opportunity instead of two as suggested by the Nuclear Energy Institute. A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

3Q/99: A revision has been made to previously submitted data for the Emergency Preparedness Drill and Exercise Performance (DEP) indicator. Credit was given for DEP opportunities during some licensed operator requalification training simulator sets when they should not have been credited. Five months of data are affected and have been revised (8-99, 9-99, 10-99, 5-00, and 8-00). The change to the data does not affect the color of the indicator.

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Participating Key personnel	56.0	61.0	68.0	63.0	63.0	63.0
Total Key personnel	60.0	62.0	72.0	65.0	65.0	63.0
Indicator value	**93.3%**	**98.4%**	**94.4%**	**96.9%**	**96.9%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Successful siren-tests	5883	6000	5915	5821	5864	5964
Total sirens-tests	5922	6110	6016	5922	5922	6016
Indicator value	**98.2%**	**98.5%**	**98.5%**	**98.5%**	**98.5%**	**98.7%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
High radiation area occurrences	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
RETS/ODCM occurrences	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
IDS compensatory hours	57.60	57.60	57.60	93.10	17.43	21.85
CCTV compensatory hours	6.5	67.8	6.8	0	37.5	2.6
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.097**	**0.031**	**0.025**	**0.015**	**0.016**	**0.010**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Program failures	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01
Program Failures	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary ~ Inspection Findings Summary ~ Action Matrix Summary ~ Reactor Oversight Process

Last Modified: March 28, 2002

Byron 1

2Q/2001 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Unplanned scrams	0	0	0	0	0	0	0
Critical hours	2209.0	2184.0	2183.0	2016.0	1979.4	2160.0	2183.0
Indicator value	**0.9**	**0.9**	**0**	**0**	**0**	**0**	**0**

Licensee Comments:

4Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

3Q/99: A change was made to historical data for the Unplanned Scrams per 7,000 Critical Hours performance indicator (PI) for Byron Unit 1. This change was done to address an internal NEI PI website database problem. This change restores the historical database to agree with data as previously submitted to the NRC and does not change any data already sent to the NRC. The months of September 1999, October 1999, and November 1999 were affected. The change has no affect on performance indicator color.

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Scrams	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Unplanned power changes	0	0	0	0	1.0	0	1.0
Critical hours	2209.0	2184.0	2183.0	2016.0	1979.4	2160.0	2183.0
Indicator value	**0.9**	**0**	**0**	**0**	**0.8**	**0.8**	**1.7**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Train 1							
Planned unavailable hours	16.60	0	13.40	23.50	6.60	0	0
Unplanned unavailable hours	0	0	0	0	54.20	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00
Train 2							
Planned unavailable hours	1.00	14.60	0	0	0	44.00	0
Unplanned unavailable hours	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00
Indicator value	**1.2%**	**1.1%**	**1.1%**	**1.2%**	**1.3%**	**1.4%**	**1.4%**

Licensee Comments:

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the month of December 2000 was revised as appropriate for consistency with FAQ 289, which was posted on November 15, 2001. The change to the data does not affect the color of the indicator.

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

2Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Train 1							
Planned unavailable hours	1.00	2.00	1.50	14.00	0.60	13.60	0.60
Unplanned unavailable hours	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00
Train 2							
Planned unavailable hours	1.30	0.80	1.00	1.10	0.40	0.93	0
Unplanned unavailable hours	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00
Train 3							

Planned unavailable hours	0	0	0	0	23.10	0	0
Unplanned unavailable hours	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00
Train 4							
Planned unavailable hours	0	0	0	0	0	0	0
Unplanned unavailable hours	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00
Indicator value	**0.7%**	**0.7%**	**0.5%**	**0.6%**	**0.6%**	**0.5%**	**0.5%**

Licensee Comments:

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the High Pressure Safety Injection system for Byron Unit 1. Data for the month of February 1999 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Train 1							
Planned unavailable hours	14.70	35.70	7.20	1.30	1.60	2.00	3.10
Unplanned unavailable hours	0	0	0	0	0	0	0

Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00
Train 2							
Planned unavailable hours	14.70	19.50	2.80	2.70	1.30	25.80	1.30
Unplanned unavailable hours	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00
Indicator value	**1.8%**	**1.7%**	**1.7%**	**0.9%**	**0.8%**	**0.8%**	**0.8%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Train 1							
Planned unavailable hours	3.80	2.40	20.20	25.60	3.50	0.90	0.30
Unplanned unavailable hours	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00
Train 2							
Planned unavailable hours	2.00	61.50	1.60	2.10	4.50	0.40	0.40

Unplanned unavailable hours	0	6.60	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00
Indicator value	**0.6%**	**0.7%**	**0.8%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments:

1Q/01: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

2Q/00: Addition of 1.1 Planned Unavailability Hours from 5/02/00 on 1A Residual Heat Removal Train. This time is insignificant to the calculation of the Performance Indicator, and does not change the "color" of this indicator. A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Safety System Functional Failures	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00
Maximum activity	0.000303	0.000337	0.000359	0.000360	0.000387	0.000378	0.000389	0.000414	0.000421	0.000417	0.000742	0.000406
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**

Reactor Coolant System Activity	10/00	11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01
Maximum activity	0.000224	0.000234	0.000251	0.000265	0.000432	0.000292	0.000315	0.000325	0.000345
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00
Maximum leakage	0.101	0.075	0.086	0.090	0.088	0.080	0.081	0.091	0.128	0.277	0.288	0.273
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.0**	**0.7**	**0.9**	**0.9**	**0.9**	**0.8**	**0.8**	**0.9**	**1.3**	**2.8**	**2.9**	**2.7**

Reactor Coolant System Leakage	10/00	11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01
Maximum leakage	0.296	0.377	0.368	0.471	0.360	0.392	0.392	0.556	0.304
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**3.0**	**3.8**	**3.7**	**4.7**	**3.6**	**3.9**	**3.9**	**5.6**	**3.0**

Licensee Comments:

3/98: A revision has been made to previously submitted data for the Reactor Coolant System Identified Leak Rate (RCSL) performance indicator for Byron Unit 1. An incorrect value for maximum RCSL for March 1998 was previously reported. The change to the data does not affect the color of the indicator.

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Successful opportunities	4.0	63.0	30.0	49.0	0	14.0	0
Total opportunities	4.0	64.0	30.0	50.0	0	16.0	0
Indicator value	**99.1%**	**98.8%**	**99.0%**	**98.8%**	**98.8%**	**98.1%**	**97.5%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Participating Key personnel	56.0	61.0	68.0	63.0	63.0	63.0	59.0
Total Key personnel	60.0	62.0	72.0	65.0	65.0	63.0	60.0
Indicator value	**93.3%**	**98.4%**	**94.4%**	**96.9%**	**96.9%**	**100.0%**	**98.3%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Successful siren-tests	5883	6000	5915	5821	5864	5964	5978
Total sirens-tests	5922	6110	6016	5922	5922	6016	6016
Indicator value	**98.2%**	**98.5%**	**98.5%**	**98.5%**	**98.5%**	**98.7%**	**99.0%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
High radiation area occurrences	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
RETS/ODCM occurrences	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
IDS compensatory hours	57.60	57.60	57.60	93.10	17.43	21.85	92.99
CCTV compensatory hours	6.5	67.8	6.8	0	37.5	2.6	0
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.097**	**0.031**	**0.025**	**0.015**	**0.016**	**0.010**	**0.011**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Program failures	0	0	0	0	0	0	1
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01
Program Failures	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Last Modified: March 27, 2002

Byron 1

3Q/2001 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2209.0	2184.0	2183.0	2016.0	1979.4	2160.0	2183.0	2208.0
Indicator value	**0.9**	**0.9**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Unplanned power changes	0	0	0	0	1.0	0	1.0	2.0
Critical hours	2209.0	2184.0	2183.0	2016.0	1979.4	2160.0	2183.0	2208.0
Indicator value	**0.9**	**0**	**0**	**0**	**0.8**	**0.8**	**1.7**	**3.3**

Licensee Comments: none

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Train 1								
Planned unavailable hours	16.60	0	13.40	23.50	6.60	0	0	14.60
Unplanned unavailable hours	0	0	0	0	54.20	0	0	1.90
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	1.00	14.60	0	0	0	44.00	0	5.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Indicator value	**1.2%**	**1.1%**	**1.1%**	**1.2%**	**1.3%**	**1.4%**	**1.4%**	**0.9%**

Licensee Comments:

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the month of December 2000 was revised as appropriate for consistency with FAQ 289, which was posted on November 15, 2001. The change to the data does not affect the color of the indicator.

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

2Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Train 1								
Planned unavailable hours	1.00	2.00	1.50	14.00	0.60	13.60	0.60	21.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	1.30	0.80	1.00	1.10	0.40	0.93	0	22.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Train 3								

Planned unavailable hours	0	0	0	0	23.10	0	0	0.90
Unplanned unavailable hours	0	0	0	0	0	0	0	6.60
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Train 4								
Planned unavailable hours	0	0	0	0	0	0	0	39.90
Unplanned unavailable hours	0	0	0	0	0	0	0	6.60
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Indicator value	**0.7%**	**0.7%**	**0.5%**	**0.6%**	**0.6%**	**0.5%**	**0.5%**	**0.6%**

Licensee Comments:

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the High Pressure Safety Injection system for Byron Unit 1. Data for the month of February 1999 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Train 1								
Planned unavailable hours	14.70	35.70	7.20	1.30	1.60	2.00	3.10	1.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0

Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	14.70	19.50	2.80	2.70	1.30	25.80	1.30	1.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00
Indicator value	**1.8%**	**1.7%**	**1.7%**	**0.9%**	**0.8%**	**0.8%**	**0.8%**	**0.6%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Train 1								
Planned unavailable hours	3.80	2.40	20.20	25.60	3.50	0.90	0.30	0.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	2.00	61.50	1.60	2.10	4.50	0.40	0.40	0.50

Unplanned unavailable hours	0	6.60	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Indicator value	**0.6%**	**0.7%**	**0.8%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.4%**

Licensee Comments:

1Q/01: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

2Q/00: Addition of 1.1 Planned Unavailability Hours from 5/02/00 on 1A Residual Heat Removal Train. This time is insignificant to the calculation of the Performance Indicator, and does not change the "color" of this indicator. A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Residual Heat Removal (RHR) System for Byron Unit 1. Unit 1 RHR system data for the months of May 2000, July 2000, September 2000, October 2000, and January 2001 was revised as appropriate for consistency with FAQ 152 which was posted on 4-1-00 and remained in place through 6-30-01. The change to the data does not affect the color of the indicator.

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00
Maximum activity	0.000303	0.000337	0.000359	0.000360	0.000387	0.000378	0.000389	0.000414	0.000421	0.000417	0.000742	0.000406
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**

Reactor Coolant System Activity	10/00	11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01
Maximum activity	0.000224	0.000234	0.000251	0.000265	0.000432	0.000292	0.000315	0.000325	0.000345	0.000366	0.000407	0.000375
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/99	11/99	12/99	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00
Maximum leakage	0.101	0.075	0.086	0.090	0.088	0.080	0.081	0.091	0.128	0.277	0.288	0.273
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.0**	**0.7**	**0.9**	**0.9**	**0.9**	**0.8**	**0.8**	**0.9**	**1.3**	**2.8**	**2.9**	**2.7**

Reactor Coolant System Leakage	10/00	11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01
Maximum leakage	0.296	0.377	0.368	0.471	0.360	0.392	0.392	0.556	0.304	0.505	0.502	0.581
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**3.0**	**3.8**	**3.7**	**4.7**	**3.6**	**3.9**	**3.9**	**5.6**	**3.0**	**5.0**	**5.0**	**5.8**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Successful opportunities	4.0	63.0	30.0	49.0	0	14.0	0	31.0
Total opportunities	4.0	64.0	30.0	50.0	0	16.0	0	35.0
Indicator value	**99.1%**	**98.8%**	**99.0%**	**98.8%**	**98.8%**	**98.1%**	**97.5%**	**96.0%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Participating Key personnel	56.0	61.0	68.0	63.0	63.0	63.0	59.0	60.0
Total Key personnel	60.0	62.0	72.0	65.0	65.0	63.0	60.0	61.0
Indicator value	**93.3%**	**98.4%**	**94.4%**	**96.9%**	**96.9%**	**100.0%**	**98.3%**	**98.4%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Successful siren-tests	5883	6000	5915	5821	5864	5964	5978	5864
Total sirens-tests	5922	6110	6016	5922	5922	6016	6016	5922
Indicator value	**98.2%**	**98.5%**	**98.5%**	**98.5%**	**98.5%**	**98.7%**	**99.0%**	**99.1%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
IDS compensatory hours	57.60	57.60	57.60	93.10	17.43	21.85	92.99	29.12
CCTV compensatory hours	6.5	67.8	6.8	0	37.5	2.6	0	0
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.097**	**0.031**	**0.025**	**0.015**	**0.016**	**0.010**	**0.011**	**0.009**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Program failures	0	0	0	0	0	0	1	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	4Q/99	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Last Modified: March 26, 2002

Byron 1

4Q/2001 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.0	2183.0	2016.0	1979.4	2160.0	2183.0	2208.0	2209.0
Indicator value	**0.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Unplanned power changes	0	0	0	1.0	0	1.0	2.0	1.0
Critical hours	2184.0	2183.0	2016.0	1979.4	2160.0	2183.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0.8**	**0.8**	**1.7**	**3.3**	**3.2**

Licensee Comments:

4Q/01: For Byron Units 1 and 2, during September 2001, it was discovered that Main Steam Isolation Valves (MSIV) testing in Mode 3 had not been performed. A Notice of Enforcement Discretion (NOED) was requested and approved. No actual change in reactor power was initiated due to this condition. This event was not counted as an unplanned power change for September. The words in NEI 99-02 revision 1 don't support counting this event as an unplanned power change since no actual change in reactor power occurred. A Frequently Asked Question is being planned for submittal to request further clarification of this issue.

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Train 1								
Planned unavailable hours	0	13.40	23.50	6.60	0	0	14.60	34.60
Unplanned unavailable hours	0	0	0	54.20	0	0	1.90	0.40
Fault exposure hours	0	0	0	0	0	0	0	126.90
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	14.60	0	0	0	44.00	0	5.80	5.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Indicator value	**1.1%**	**1.1%**	**1.2%**	**1.3%**	**1.4%**	**1.4%**	**0.9%**	**1.1%**

Licensee Comments:

4Q/01: Effective with 4th quarter 2001, Safety System Unavailability (SSU) time is being counted for affected systems (Emergency AC Power, High Pressure Safety Injection, Auxiliary Feedwater, and Residual Heat Removal) due to Solid State Protection System (SSPS) testing when an entire train of safety systems may have the automatic feature inhibited. Frequently Asked Question (FAQ) 290, which was posted in 4th quarter 2001, alludes to this. A follow-up FAQ is being planned for submittal to further clarify the intent of FAQ 290.

4Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the month of December 2000 was revised as appropriate for consistency with FAQ 289, which was posted on November 15, 2001. The change to the data does not affect the color of the indicator.

3Q/00: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

4Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

2Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised

as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the Emergency AC Power system for Byron Unit 1. Data for the months of February 1999, May 1999, November 1999, and August 2000 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Train 1								
Planned unavailable hours	2.00	1.50	14.00	0.60	13.60	0.60	21.20	1.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	0.80	1.00	1.10	0.40	0.93	0	22.90	12.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00
Train 3								
Planned unavailable hours	0	0	0	23.10	0	0	0.90	1.80
Unplanned unavailable hours	0	0	0	0	0	0	6.60	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00
Train 4								
Planned unavailable hours	0	0	0	0	0	0	39.90	5.90
Unplanned unavailable hours	0	0	0	0	0	0	6.60	0
Fault exposure hours	0	0	0	0	0	0	0	0

Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00
Indicator value	**0.7%**	**0.5%**	**0.6%**	**0.6%**	**0.5%**	**0.5%**	**0.6%**	**0.6%**

Licensee Comments:

4Q/01: Effective with 4th quarter 2001, Safety System Unavailability (SSU) time is being counted for affected systems (Emergency AC Power, High Pressure Safety Injection, Auxiliary Feedwater, and Residual Heat Removal) due to Solid State Protection System (SSPS) testing when an entire train of safety systems may have the automatic feature inhibited. Frequently Asked Question (FAQ) 290, which was posted in 4th quarter 2001, alludes to this. A follow-up FAQ is being planned for submittal to further clarify the intent of FAQ 290.

1Q/99: A revision has been made to previously submitted data for the Safety System Unavailability (SSU) performance indicator for the High Pressure Safety Injection system for Byron Unit 1. Data for the month of February 1999 was revised as appropriate for consistency with FAQ 297, which was posted on December 13, 2001. The change to the data does not affect the color of the indicator.

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	**1Q/00**	**2Q/00**	**3Q/00**	**4Q/00**	**1Q/01**	**2Q/01**	**3Q/01**	**4Q/01**
Train 1								
Planned unavailable hours	35.70	7.20	1.30	1.60	2.00	3.10	1.80	3.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	19.50	2.80	2.70	1.30	25.80	1.30	1.70	9.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00
Indicator value	**1.7%**	**1.7%**	**0.9%**	**0.8%**	**0.8%**	**0.8%**	**0.6%**	**0.5%**

Licensee Comments:

4Q/01: Effective with 4th quarter 2001, Safety System Unavailability (SSU) time is being counted for affected systems (Emergency AC Power, High Pressure Safety Injection, Auxiliary Feedwater, and Residual Heat Removal) due to Solid State Protection System (SSPS) testing when an entire train of safety systems may have the automatic feature inhibited. Frequently Asked Question (FAQ) 290, which was posted in 4th quarter 2001, alludes to this. A follow-up FAQ is being planned for submittal to further clarify the intent of FAQ 290.

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Train 1								
Planned unavailable hours	2.40	20.20	25.60	3.50	0.90	0.30	0.20	1.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	61.50	1.60	2.10	4.50	0.40	0.40	0.50	5.90
Unplanned unavailable hours	6.60	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Indicator value	**0.7%**	**0.8%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.4%**	**0.4%**

Licensee Comments:

4Q/01: Effective with 4th quarter 2001, Safety System Unavailability (SSU) time is being counted for affected systems (Emergency AC Power, High Pressure Safety Injection, Auxiliary Feedwater, and Residual Heat Removal) due to Solid State Protection System (SSPS) testing when an entire train of safety systems may have the automatic feature inhibited. Frequently Asked Question (FAQ) 290, which was posted in 4th quarter 2001, alludes to this. A follow-up FAQ is being planned for submittal to further clarify the intent of FAQ 290.

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Safety System Functional Failures	0	0	0	0	0	0	0	1
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00
Maximum activity	0.000360	0.000387	0.000378	0.000389	0.000414	0.000421	0.000417	0.000742	0.000406	0.000224	0.000234	0.000251
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum activity	0.000265	0.000432	0.000292	0.000315	0.000325	0.000345	0.000366	0.000407	0.000375	0.000400	0.000413	0.000440
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/00	2/00	3/00	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00
Maximum leakage	0.090	0.088	0.080	0.081	0.091	0.128	0.277	0.288	0.273	0.296	0.377	0.368
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.9**	**0.9**	**0.8**	**0.8**	**0.9**	**1.3**	**2.8**	**2.9**	**2.7**	**3.0**	**3.8**	**3.7**

Reactor Coolant System Leakage	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum leakage	0.471	0.360	0.392	0.392	0.556	0.304	0.505	0.502	0.581	0.744	0.613	0.830
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**4.7**	**3.6**	**3.9**	**3.9**	**5.6**	**3.0**	**5.0**	**5.0**	**5.8**	**7.4**	**6.1**	**8.3**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Successful opportunities	63.0	30.0	49.0	0	14.0	0	31.0	38.0
Total opportunities	64.0	30.0	50.0	0	16.0	0	35.0	40.0
Indicator value	**98.8%**	**99.0%**	**98.8%**	**98.8%**	**98.1%**	**97.5%**	**96.0%**	**95.7%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Participating Key personnel	61.0	68.0	63.0	63.0	63.0	59.0	60.0	53.0
Total Key personnel	62.0	72.0	65.0	65.0	63.0	60.0	61.0	56.0
Indicator value	**98.4%**	**94.4%**	**96.9%**	**96.9%**	**100.0%**	**98.3%**	**98.4%**	**94.6%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Successful siren-tests	6000	5915	5821	5864	5964	5978	5864	5872
Total sirens-tests	6110	6016	5922	5922	6016	6016	5922	5922
Indicator value	**98.5%**	**98.5%**	**98.5%**	**98.5%**	**98.7%**	**99.0%**	**99.1%**	**99.2%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Protected Area Security Performance Index

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
IDS compensatory hours	57.60	57.60	93.10	17.43	21.85	92.99	29.12	247.72
CCTV compensatory hours	67.8	6.8	0	37.5	2.6	0	0	0
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.031**	**0.025**	**0.015**	**0.016**	**0.010**	**0.011**	**0.009**	**0.016**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Program failures	0	0	0	0	0	1	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	1Q/00	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Action Matrix Summary | Reactor Oversight Process

Last Modified: March 15, 2002

Byron 1

1Q/2002 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2183.0	2016.0	1979.4	2160.0	2183.0	2208.0	2209.0	1731.3
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Unplanned power changes	0	0	1.0	0	1.0	2.0	1.0	0
Critical hours	2183.0	2016.0	1979.4	2160.0	2183.0	2208.0	2209.0	1731.3
Indicator value	**0**	**0**	**0.8**	**0.8**	**1.7**	**3.3**	**3.2**	**3.4**

Licensee Comments:

1Q/02: During submittal of fourth quarter 2001 performance indicator (PI) data, a supporting comment was provided for the Unplanned Power Changes per 7000 Critical Hours PI and mentioned a request for and approval of a Notice of Enforcement Discretion (NOED) for Byron Units 1 and 2 during September 2001. The NOED addressed Main Steam Isolation Valves (MSIV) testing in Mode 3 that had not been performed. If the NRC had not granted the NOED, this may have resulted in an unplanned power change on the units involved. The condition was not counted as an unplanned power change during the third quarter because no actual change in reactor power occurred due to this condition. This is consistent with the response to Frequently Asked Question # 305 on this same topic, which was posted on March 21, 2002.

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Train 1								
Planned unavailable hours	13.40	23.50	6.60	0	0	14.60	34.60	3.20
Unplanned unavailable hours	0	0	54.20	0	0	1.90	0.40	0
Fault exposure hours	0	0	0	0	0	0	126.90	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Train 2								
Planned unavailable hours	0	0	0	44.00	0	5.80	5.90	1.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Indicator value	**1.1%**	**1.2%**	**1.3%**	**1.4%**	**1.4%**	**0.9%**	**1.1%**	**0.9%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Train 1								
Planned unavailable hours	1.50	14.00	0.60	13.60	0.60	21.20	1.80	3.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25
Train 2								
Planned unavailable hours	1.00	1.10	0.40	0.93	0	22.90	12.70	1.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0.50
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25
Train 3								
Planned unavailable hours	0	0	23.10	0	0	0.90	1.80	3.20
Unplanned unavailable hours	0	0	0	0	0	6.60	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25
Train 4								
Planned unavailable hours	0	0	0	0	0	39.90	5.90	1.90
Unplanned unavailable hours	0	0	0	0	0	6.60	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25
Indicator value	**0.5%**	**0.6%**	**0.6%**	**0.5%**	**0.5%**	**0.6%**	**0.6%**	**0.3%**

Licensee Comments: none

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Train 1								
Planned unavailable hours	7.20	1.30	1.60	2.00	3.10	1.80	3.90	4.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25
Train 2								
Planned unavailable hours	2.80	2.70	1.30	25.80	1.30	1.70	9.30	38.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25
Indicator value	**1.7%**	**0.9%**	**0.8%**	**0.8%**	**0.8%**	**0.6%**	**0.5%**	**0.5%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Train 1								
Planned unavailable hours	20.20	25.60	3.50	0.90	0.30	0.20	1.80	28.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Train 2								
Planned unavailable hours	1.60	2.10	4.50	0.40	0.40	0.50	5.90	29.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Indicator value	**0.8%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.4%**	**0.4%**	**0.5%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Safety System Functional Failures	0	0	0	0	0	0	1	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/00**	**5/00**	**6/00**	**7/00**	**8/00**	**9/00**	**10/00**	**11/00**	**12/00**	**1/01**	**2/01**	**3/01**
Maximum activity	0.000389	0.000414	0.000421	0.000417	0.000742	0.000406	0.000224	0.000234	0.000251	0.000265	0.000432	0.000292
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**4/01**	**5/01**	**6/01**	**7/01**	**8/01**	**9/01**	**10/01**	**11/01**	**12/01**	**1/02**	**2/02**	**3/02**
Maximum activity	0.000315	0.000325	0.000345	0.000366	0.000407	0.000375	0.000400	0.000413	0.000440	0.000474	0.000438	0.000414
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	4/00	5/00	6/00	7/00	8/00	9/00	10/00	11/00	12/00	1/01	2/01	3/01
Maximum leakage	0.081	0.091	0.128	0.277	0.288	0.273	0.296	0.377	0.368	0.471	0.360	0.392
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**0.9**	**1.3**	**2.8**	**2.9**	**2.7**	**3.0**	**3.8**	**3.7**	**4.7**	**3.6**	**3.9**

Reactor Coolant System Leakage	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01	1/02	2/02	3/02
Maximum leakage	0.392	0.556	0.304	0.505	0.502	0.581	0.744	0.613	0.830	0.713	0.934	1.057
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**3.9**	**5.6**	**3.0**	**5.0**	**5.0**	**5.8**	**7.4**	**6.1**	**8.3**	**7.1**	**9.3**	**10.6**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Successful opportunities	30.0	49.0	0	14.0	0	31.0	38.0	34.0
Total opportunities	30.0	50.0	0	16.0	0	35.0	40.0	36.0
Indicator value	**99.0%**	**98.8%**	**98.8%**	**98.1%**	**97.5%**	**96.0%**	**95.7%**	**94.7%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Participating Key personnel	68.0	63.0	63.0	63.0	59.0	60.0	53.0	50.0
Total Key personnel	72.0	65.0	65.0	63.0	60.0	61.0	56.0	52.0
Indicator value	**94.4%**	**96.9%**	**96.9%**	**100.0%**	**98.3%**	**98.4%**	**94.6%**	**96.2%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Successful siren-tests	5915	5821	5864	6245	6258	6141	5965	5872
Total sirens-tests	6016	5922	5922	6298	6298	6204	6016	5922
Indicator value	**98.5%**	**98.5%**	**98.5%**	**98.7%**	**99.0%**	**99.1%**	**99.2%**	**99.2%**

Licensee Comments:

4Q/01: A revision has been made to previously submitted data for the Alert and Notification System (ANS) Reliability indicator. It was determined there was one day each month where both a full test and a silent test of ANS sirens was performed; however, only one of these tests had been reported. Ten months of data in 2001 were affected and have been revised (1-01, 2-01, 3-01, 4-01, 5-01, 6-01, 7-01, 8-01, 9-01, and 11-01). The October data was not revised because the full siren test was not performed in October due to concerns arising from the events of September 11, 2001. The change to the data does not affect the color of the indicator.

3Q/01: A revision has been made to previously submitted data for the Alert and Notification System (ANS) Reliability indicator. It was determined there was one day each month where both a full test and a silent test of ANS sirens was performed; however, only one of these tests had been reported. Ten months of data in 2001 were affected and have been revised (1-01, 2-01, 3-01, 4-01, 5-01, 6-01, 7-01, 8-01, 9-01, and 11-01). The October data was not revised because the full siren test was not performed in October due to concerns arising from the events of September 11, 2001. The change to the data does not affect the color of the indicator.

2Q/01: A revision has been made to previously submitted data for the Alert and Notification System (ANS) Reliability indicator. It was determined there was one day each month where both a full test and a silent test of ANS sirens was performed; however, only one of these tests had been reported. Ten months of data in 2001 were affected and have been revised (1-01, 2-01, 3-01, 4-01, 5-01, 6-01, 7-01, 8-01, 9-01, and 11-01). The October data was not revised because the full siren test was not performed in October due to concerns arising from the events of September 11, 2001. The change to the data does not affect the color of the indicator.

1Q/01: A revision has been made to previously submitted data for the Alert and Notification System (ANS) Reliability indicator. It was determined there was one day each month where both a full test and a silent test of ANS sirens was performed; however, only one of these tests had been reported. Ten months of data in 2001 were affected and have been revised (1-01, 2-01, 3-01, 4-01, 5-01, 6-01, 7-01, 8-01, 9-01, and 11-01). The October data was not revised because the full siren test was not performed in October due to concerns arising from the events of September 11, 2001. The change to the data does not affect the color of the indicator.

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Protected Area Security Performance Index

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
IDS compensatory hours	57.60	93.10	17.43	21.85	92.99	29.12	247.72	62.00
CCTV compensatory hours	6.8	0	37.5	2.6	0	0	0	0
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.025**	**0.015**	**0.016**	**0.010**	**0.011**	**0.009**	**0.016**	**0.018**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Program failures	0	0	0	0	1	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	2Q/00	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: May 1, 2002

Byron 1

2Q/2002 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2016.0	1979.4	2160.0	2183.0	2208.0	2209.0	1731.3	2183.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Unplanned power changes	0	1.0	0	1.0	2.0	1.0	0	0
Critical hours	2016.0	1979.4	2160.0	2183.0	2208.0	2209.0	1731.3	2183.0
Indicator value	**0**	**0.8**	**0.8**	**1.7**	**3.3**	**3.2**	**3.4**	**2.5**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Train 1								
Planned unavailable hours	23.50	6.60	0	0	14.60	34.60	3.20	8.00
Unplanned unavailable hours	0	54.20	0	0	1.90	0.40	0	1.30
Fault exposure hours	0	0	0	0	0	126.90	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00
Train 2								
Planned unavailable hours	0	0	44.00	0	5.80	5.90	1.90	1.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00
Indicator value	**1.2%**	**1.3%**	**1.4%**	**1.4%**	**0.9%**	**1.1%**	**0.9%**	**0.8%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Train 1								
Planned unavailable hours	14.00	0.60	13.60	0.60	21.20	1.80	3.20	7.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00
Train 2								
Planned unavailable hours	1.10	0.40	0.93	0	22.90	12.70	1.90	7.50
Unplanned unavailable hours	0	0	0	0	0	0	0.50	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00
Train 3								
Planned unavailable hours	0	23.10	0	0	0.90	1.80	3.20	23.80
Unplanned unavailable hours	0	0	0	0	6.60	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00
Train 4								
Planned unavailable hours	0	0	0	0	39.90	5.90	1.90	1.70
Unplanned unavailable hours	0	0	0	0	6.60	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0

Required hours	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00
Indicator value	**0.6%**	**0.6%**	**0.5%**	**0.5%**	**0.6%**	**0.6%**	**0.3%**	**0.3%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	**3Q/00**	**4Q/00**	**1Q/01**	**2Q/01**	**3Q/01**	**4Q/01**	**1Q/02**	**2Q/02**
Train 1								
Planned unavailable hours	1.30	1.60	2.00	3.10	1.80	3.90	4.70	5.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00
Train 2								
Planned unavailable hours	2.70	1.30	25.80	1.30	1.70	9.30	38.60	3.10
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2016.02	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00

Indicator value	**0.9%**	**0.8%**	**0.8%**	**0.8%**	**0.6%**	**0.5%**	**0.5%**	**0.5%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	**3Q/00**	**4Q/00**	**1Q/01**	**2Q/01**	**3Q/01**	**4Q/01**	**1Q/02**	**2Q/02**
Train 1								
Planned unavailable hours	25.60	3.50	0.90	0.30	0.20	1.80	28.90	7.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00
Train 2								
Planned unavailable hours	2.10	4.50	0.40	0.40	0.50	5.90	29.90	1.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00
Indicator value	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.4%**	**0.4%**	**0.5%**	**0.4%**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Safety System Functional Failures	0	0	0	0	0	1	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/00**	**8/00**	**9/00**	**10/00**	**11/00**	**12/00**	**1/01**	**2/01**	**3/01**	**4/01**	**5/01**	**6/01**
Maximum activity	0.000417	0.000742	0.000406	0.000224	0.000234	0.000251	0.000265	0.000432	0.000292	0.000315	0.000325	0.000345
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**7/01**	**8/01**	**9/01**	**10/01**	**11/01**	**12/01**	**1/02**	**2/02**	**3/02**	**4/02**	**5/02**	**6/02**
Maximum activity	0.000366	0.000407	0.000375	0.000400	0.000413	0.000440	0.000474	0.000438	0.000414	0.000240	0.000260	0.000488
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	7/00	8/00	9/00	10/00	11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01
Maximum leakage	0.277	0.288	0.273	0.296	0.377	0.368	0.471	0.360	0.392	0.392	0.556	0.304
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**2.8**	**2.9**	**2.7**	**3.0**	**3.8**	**3.7**	**4.7**	**3.6**	**3.9**	**3.9**	**5.6**	**3.0**

Reactor Coolant System Leakage	7/01	8/01	9/01	10/01	11/01	12/01	1/02	2/02	3/02	4/02	5/02	6/02
Maximum leakage	0.505	0.502	0.581	0.744	0.613	0.830	0.713	0.934	1.057	0.092	0.103	0.092
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**5.0**	**5.0**	**5.8**	**7.4**	**6.1**	**8.3**	**7.1**	**9.3**	**10.6**	**0.9**	**1.0**	**0.9**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Successful opportunities	49.0	0	14.0	0	31.0	38.0	34.0	14.0
Total opportunities	50.0	0	16.0	0	35.0	40.0	36.0	14.0
Indicator value	**98.8%**	**98.8%**	**98.1%**	**97.5%**	**96.0%**	**95.7%**	**94.7%**	**94.2%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Participating Key personnel	63.0	63.0	63.0	59.0	60.0	53.0	50.0	55.0
Total Key personnel	65.0	65.0	63.0	60.0	61.0	56.0	52.0	56.0
Indicator value	**96.9%**	**96.9%**	**100.0%**	**98.3%**	**98.4%**	**94.6%**	**96.2%**	**98.2%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Successful siren-tests	5821	5864	6245	6258	6141	5965	5872	5945
Total sirens-tests	5922	5922	6298	6298	6204	6016	5922	6016
Indicator value	**98.5%**	**98.5%**	**98.7%**	**99.0%**	**99.1%**	**99.2%**	**99.2%**	**99.0%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
IDS compensatory hours	93.10	17.43	21.85	92.99	29.12	247.72	62.00	14.60
CCTV compensatory hours	0	37.5	2.6	0	0	0	0	13.5
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.015**	**0.016**	**0.010**	**0.011**	**0.009**	**0.016**	**0.018**	**0.015**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Program failures	0	0	0	1	0	0	0	0
Indicator value	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**0**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	3Q/00	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: July 31, 2002

Byron 1

3Q/2002 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1979.4	2160.0	2183.0	2208.0	2209.0	1731.3	2183.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Unplanned power changes	1.0	0	1.0	2.0	1.0	0	0	0
Critical hours	1979.4	2160.0	2183.0	2208.0	2209.0	1731.3	2183.0	2208.0
Indicator value	**0.8**	**0.8**	**1.7**	**3.3**	**3.2**	**3.4**	**2.5**	**0.8**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Train 1								
Planned unavailable hours	6.60	0	0	14.60	34.60	3.20	8.00	1.40
Unplanned unavailable hours	54.20	0	0	1.90	0.40	0	1.30	0
Fault exposure hours	0	0	0	0	126.90	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	0	44.00	0	5.80	5.90	1.90	1.70	4.10
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Indicator value	**1.3%**	**1.4%**	**1.4%**	**0.9%**	**1.1%**	**0.9%**	**0.8%**	**0.7%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	**4Q/00**	**1Q/01**	**2Q/01**	**3Q/01**	**4Q/01**	**1Q/02**	**2Q/02**	**3Q/02**
Train 1								
Planned unavailable hours	0.60	13.60	0.60	21.20	1.80	3.20	7.50	1.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00
Train 2								
Planned unavailable hours	0.40	0.93	0	22.90	12.70	1.90	7.50	4.10
Unplanned unavailable hours	0	0	0	0	0	0.50	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00
Train 3								
Planned unavailable hours	23.10	0	0	0.90	1.80	3.20	23.80	1.40
Unplanned unavailable hours	0	0	0	6.60	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00
Train 4								
Planned unavailable hours	0	0	0	39.90	5.90	1.90	1.70	4.10
Unplanned unavailable hours	0	0	0	6.60	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00
Indicator value	**0.6%**	**0.5%**	**0.5%**	**0.6%**	**0.6%**	**0.3%**	**0.3%**	**0.2%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Train 1								
Planned unavailable hours	1.60	2.00	3.10	1.80	3.90	4.70	5.50	3.10
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00
Train 2								
Planned unavailable hours	1.30	25.80	1.30	1.70	9.30	38.60	3.10	19.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1979.35	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00
Indicator value	**0.8%**	**0.8%**	**0.8%**	**0.6%**	**0.5%**	**0.5%**	**0.5%**	**0.4%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Train 1								
Planned unavailable hours	3.50	0.90	0.30	0.20	1.80	28.90	7.90	12.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	4.50	0.40	0.40	0.50	5.90	29.90	1.70	4.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Indicator value	**0.6%**	**0.6%**	**0.6%**	**0.4%**	**0.4%**	**0.5%**	**0.4%**	**0.4%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Safety System Functional Failures	0	0	0	0	1	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/00**	**11/00**	**12/00**	**1/01**	**2/01**	**3/01**	**4/01**	**5/01**	**6/01**	**7/01**	**8/01**	**9/01**
Maximum activity	0.000224	0.000234	0.000251	0.000265	0.000432	0.000292	0.000315	0.000325	0.000345	0.000366	0.000407	0.000375
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**10/01**	**11/01**	**12/01**	**1/02**	**2/02**	**3/02**	**4/02**	**5/02**	**6/02**	**7/02**	**8/02**	**9/02**
Maximum activity	0.000400	0.000413	0.000440	0.000474	0.000438	0.000414	0.000240	0.000260	0.000488	0.000295	0.000313	0.000334
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/00	11/00	12/00	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01
Maximum leakage	0.296	0.377	0.368	0.471	0.360	0.392	0.392	0.556	0.304	0.505	0.502	0.581
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**3.0**	**3.8**	**3.7**	**4.7**	**3.6**	**3.9**	**3.9**	**5.6**	**3.0**	**5.0**	**5.0**	**5.8**

Reactor Coolant System Leakage	10/01	11/01	12/01	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02
Maximum leakage	0.744	0.613	0.830	0.713	0.934	1.057	0.092	0.103	0.092	0.078	0.151	0.076
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**7.4**	**6.1**	**8.3**	**7.1**	**9.3**	**10.6**	**0.9**	**1.0**	**0.9**	**0.8**	**1.5**	**0.8**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Successful opportunities	0	14.0	0	31.0	38.0	34.0	14.0	33.0
Total opportunities	0	16.0	0	35.0	40.0	36.0	14.0	34.0
Indicator value	**98.8%**	**98.1%**	**97.5%**	**96.0%**	**95.7%**	**94.7%**	**94.2%**	**93.7%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Participating Key personnel	63.0	63.0	59.0	60.0	53.0	50.0	55.0	55.0
Total Key personnel	65.0	63.0	60.0	61.0	56.0	52.0	56.0	55.0
Indicator value	**96.9%**	**100.0%**	**98.3%**	**98.4%**	**94.6%**	**96.2%**	**98.2%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Successful siren-tests	5864	6245	6258	6141	5965	5872	5945	5994
Total sirens-tests	5922	6298	6298	6204	6016	5922	6016	6016
Indicator value	**98.5%**	**98.7%**	**99.0%**	**99.1%**	**99.2%**	**99.2%**	**99.0%**	**99.2%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
IDS compensatory hours	17.43	21.85	92.99	29.12	247.72	62.00	14.60	12.80
CCTV compensatory hours	37.5	2.6	0	0	0	0	13.5	4.3
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.016**	**0.010**	**0.011**	**0.009**	**0.016**	**0.018**	**0.015**	**0.015**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Program failures	0	0	1	0	0	0	0	0
Indicator value	**0**	**0**	**1**	**1**	**1**	**1**	**0**	**0**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	4Q/00	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: October 22, 2002

Byron 1

4Q/2002 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Unplanned scrams	0	0	0	0	0	0	0	2.0
Critical hours	2160.0	2183.0	2208.0	2209.0	1731.3	2183.0	2208.0	2169.9
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1.7**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Unplanned power changes	0	1.0	2.0	1.0	0	0	0	0
Critical hours	2160.0	2183.0	2208.0	2209.0	1731.3	2183.0	2208.0	2169.9
Indicator value	**0.8**	**1.7**	**3.3**	**3.2**	**3.4**	**2.5**	**0.8**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Train 1								
Planned unavailable hours	0	0	14.60	34.60	3.20	8.00	1.40	2.90
Unplanned unavailable hours	0	0	1.90	0.40	0	1.30	0	0
Fault exposure hours	0	0	0	126.90	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	44.00	0	5.80	5.90	1.90	1.70	4.10	1.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Indicator value	**1.4%**	**1.4%**	**0.9%**	**1.1%**	**0.9%**	**0.8%**	**0.7%**	**0.7%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Train 1								
Planned unavailable hours	13.60	0.60	21.20	1.80	3.20	7.50	1.40	2.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70
Train 2								
Planned unavailable hours	0.93	0	22.90	12.70	1.90	7.50	4.10	73.70
Unplanned unavailable hours	0	0	0	0	0.50	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70
Train 3								
Planned unavailable hours	0	0	0.90	1.80	3.20	23.80	1.40	3.20
Unplanned unavailable hours	0	0	6.60	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70
Train 4								
Planned unavailable hours	0	0	39.90	5.90	1.90	1.70	4.10	1.60
Unplanned unavailable hours	0	0	6.60	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70
Indicator value	**0.5%**	**0.5%**	**0.6%**	**0.6%**	**0.3%**	**0.3%**	**0.2%**	**0.3%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Train 1								
Planned unavailable hours	2.00	3.10	1.80	3.90	4.70	5.50	3.10	6.10
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70
Train 2								
Planned unavailable hours	25.80	1.30	1.70	9.30	38.60	3.10	19.80	13.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70
Indicator value	**0.8%**	**0.8%**	**0.6%**	**0.5%**	**0.5%**	**0.5%**	**0.4%**	**0.4%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Train 1								
Planned unavailable hours	0.90	0.30	0.20	1.80	28.90	7.90	12.30	2.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	0.40	0.40	0.50	5.90	29.90	1.70	4.40	1.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Indicator value	**0.6%**	**0.6%**	**0.4%**	**0.4%**	**0.5%**	**0.4%**	**0.4%**	**0.4%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Safety System Functional Failures	0	0	0	1	0	0	0	0
Indicator value	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/01**	**2/01**	**3/01**	**4/01**	**5/01**	**6/01**	**7/01**	**8/01**	**9/01**	**10/01**	**11/01**	**12/01**
Maximum activity	0.000265	0.000432	0.000292	0.000315	0.000325	0.000345	0.000366	0.000407	0.000375	0.000400	0.000413	0.000440
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**1/02**	**2/02**	**3/02**	**4/02**	**5/02**	**6/02**	**7/02**	**8/02**	**9/02**	**10/02**	**11/02**	**12/02**
Maximum activity	0.000474	0.000438	0.000414	0.000240	0.000260	0.000488	0.000295	0.000313	0.000334	0.000333	0.000349	0.000364
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
Maximum leakage	0.471	0.360	0.392	0.392	0.556	0.304	0.505	0.502	0.581	0.744	0.613	0.830
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**4.7**	**3.6**	**3.9**	**3.9**	**5.6**	**3.0**	**5.0**	**5.0**	**5.8**	**7.4**	**6.1**	**8.3**

Reactor Coolant System Leakage	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02
Maximum leakage	0.713	0.934	1.057	0.092	0.103	0.092	0.078	0.151	0.076	0.139	0.097	0.083
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**7.1**	**9.3**	**10.6**	**0.9**	**1.0**	**0.9**	**0.8**	**1.5**	**0.8**	**1.4**	**1.0**	**0.8**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Successful opportunities	14.0	0	31.0	38.0	34.0	14.0	33.0	43.0
Total opportunities	16.0	0	35.0	40.0	36.0	14.0	34.0	47.0
Indicator value	**98.1%**	**97.5%**	**96.0%**	**95.7%**	**94.7%**	**94.2%**	**93.7%**	**93.2%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Participating Key personnel	63.0	59.0	60.0	53.0	50.0	55.0	55.0	54.0
Total Key personnel	63.0	60.0	61.0	56.0	52.0	56.0	55.0	55.0
Indicator value	**100.0%**	**98.3%**	**98.4%**	**94.6%**	**96.2%**	**98.2%**	**100.0%**	**98.2%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Successful siren-tests	6245	6258	6141	5965	5872	5945	5994	5991
Total sirens-tests	6298	6298	6204	6016	5922	6016	6016	6016
Indicator value	**98.7%**	**99.0%**	**99.1%**	**99.2%**	**99.2%**	**99.0%**	**99.2%**	**99.3%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
IDS compensatory hours	21.85	92.99	29.12	247.72	62.00	14.60	12.80	34.10
CCTV compensatory hours	2.6	0	0	0	0	13.5	4.3	5.8
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.010**	**0.011**	**0.009**	**0.016**	**0.018**	**0.015**	**0.015**	**0.006**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Program failures	0	1	0	0	0	0	0	0
Indicator value	**0**	**1**	**1**	**1**	**1**	**0**	**0**	**0**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	1Q/01	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: January 30, 2003

Byron 1

1Q/2003 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Unplanned scrams	0	0	0	0	0	0	2.0	0
Critical hours	2183.0	2208.0	2209.0	1731.3	2183.0	2208.0	2169.9	2160.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**1.7**	**1.6**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Unplanned power changes	1.0	2.0	1.0	0	0	0	0	0
Critical hours	2183.0	2208.0	2209.0	1731.3	2183.0	2208.0	2169.9	2160.0
Indicator value	**1.7**	**3.3**	**3.2**	**3.4**	**2.5**	**0.8**	**0**	**0**

Licensee Comments: none

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Train 1								
Planned unavailable hours	0	14.60	34.60	3.20	8.00	1.40	2.90	10.80
Unplanned unavailable hours	0	1.90	0.40	0	1.30	0	0	0
Fault exposure hours	0	0	126.90	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Train 2								
Planned unavailable hours	0	5.80	5.90	1.90	1.70	4.10	1.60	4.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Indicator value	**1.4%**	**0.9%**	**1.1%**	**0.9%**	**0.8%**	**0.7%**	**0.7%**	**0.7%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Train 1								
Planned unavailable hours	0.60	21.20	1.80	3.20	7.50	1.40	2.90	49.20
Unplanned unavailable hours	0	0	0	0	0	0	0	8.10
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00
Train 2								
Planned unavailable hours	0	22.90	12.70	1.90	7.50	4.10	73.70	12.30
Unplanned unavailable hours	0	0	0	0.50	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00
Train 3								
Planned unavailable hours	0	0.90	1.80	3.20	23.80	1.40	3.20	2.90
Unplanned unavailable hours	0	6.60	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00
Train 4								
Planned unavailable hours	0	39.90	5.90	1.90	1.70	4.10	1.60	28.30
Unplanned unavailable hours	0	6.60	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0

Required hours	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00
Indicator value	**0.5%**	**0.6%**	**0.6%**	**0.3%**	**0.3%**	**0.2%**	**0.3%**	**0.4%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	**2Q/01**	**3Q/01**	**4Q/01**	**1Q/02**	**2Q/02**	**3Q/02**	**4Q/02**	**1Q/03**
Train 1								
Planned unavailable hours	3.10	1.80	3.90	4.70	5.50	3.10	6.10	4.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00
Train 2								
Planned unavailable hours	1.30	1.70	9.30	38.60	3.10	19.80	13.20	6.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00

Indicator value	**0.8%**	**0.6%**	**0.5%**	**0.5%**	**0.5%**	**0.4%**	**0.4%**	**0.3%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	**2Q/01**	**3Q/01**	**4Q/01**	**1Q/02**	**2Q/02**	**3Q/02**	**4Q/02**	**1Q/03**
Train 1								
Planned unavailable hours	0.30	0.20	1.80	28.90	7.90	12.30	2.90	2.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Train 2								
Planned unavailable hours	0.40	0.50	5.90	29.90	1.70	4.40	1.60	4.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Indicator value	**0.6%**	**0.4%**	**0.4%**	**0.5%**	**0.4%**	**0.4%**	**0.4%**	**0.3%**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Safety System Functional Failures	0	0	1	0	0	0	0	0
Indicator value	**0**	**0**	**1**	**1**	**1**	**1**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/01**	**5/01**	**6/01**	**7/01**	**8/01**	**9/01**	**10/01**	**11/01**	**12/01**	**1/02**	**2/02**	**3/02**
Maximum activity	0.000315	0.000325	0.000345	0.000366	0.000407	0.000375	0.000400	0.000413	0.000440	0.000474	0.000438	0.000414
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**4/02**	**5/02**	**6/02**	**7/02**	**8/02**	**9/02**	**10/02**	**11/02**	**12/02**	**1/03**	**2/03**	**3/03**
Maximum activity	0.000240	0.000260	0.000488	0.000295	0.000313	0.000334	0.000333	0.000349	0.000364	0.000386	0.000662	0.000478
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01	1/02	2/02	3/02
Maximum leakage	0.392	0.556	0.304	0.505	0.502	0.581	0.744	0.613	0.830	0.713	0.934	1.057
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**3.9**	**5.6**	**3.0**	**5.0**	**5.0**	**5.8**	**7.4**	**6.1**	**8.3**	**7.1**	**9.3**	**10.6**

Reactor Coolant System Leakage	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03
Maximum leakage	0.092	0.103	0.092	0.078	0.151	0.076	0.139	0.097	0.083	0.074	0.074	0.128
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.9**	**1.0**	**0.9**	**0.8**	**1.5**	**0.8**	**1.4**	**1.0**	**0.8**	**0.7**	**0.7**	**1.3**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Successful opportunities	0	31.0	38.0	34.0	14.0	33.0	43.0	39.0
Total opportunities	0	35.0	40.0	36.0	14.0	34.0	47.0	41.0
Indicator value	**97.5%**	**96.0%**	**95.7%**	**94.7%**	**94.2%**	**93.7%**	**93.2%**	**93.9%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Participating Key personnel	59.0	60.0	53.0	50.0	55.0	55.0	54.0	54.0
Total Key personnel	60.0	61.0	56.0	52.0	56.0	55.0	55.0	55.0
Indicator value	**98.3%**	**98.4%**	**94.6%**	**96.2%**	**98.2%**	**100.0%**	**98.2%**	**98.2%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Successful siren-tests	6258	6141	5965	5872	5945	5994	5991	5898
Total sirens-tests	6298	6204	6016	5922	6016	6016	6016	5922
Indicator value	**99.0%**	**99.1%**	**99.2%**	**99.2%**	**99.0%**	**99.2%**	**99.3%**	**99.4%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
IDS compensatory hours	92.99	29.12	247.72	62.00	14.60	12.80	34.10	21.90
CCTV compensatory hours	0	0	0	0	13.5	4.3	5.8	21.4
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.011**	**0.009**	**0.016**	**0.018**	**0.015**	**0.015**	**0.006**	**0.006**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Program failures	1	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: April 22, 2003

Byron 1

2Q/2003 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Unplanned scrams	0	0	0	0	0	2.0	0	0
Critical hours	2208.0	2209.0	1731.3	2183.0	2208.0	2169.9	2160.0	2183.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**1.7**	**1.6**	**1.6**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Unplanned power changes	2.0	1.0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	1731.3	2183.0	2208.0	2169.9	2160.0	2183.0
Indicator value	**3.3**	**3.2**	**3.4**	**2.5**	**0.8**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Train 1								
Planned unavailable hours	14.60	34.60	3.20	8.00	1.40	2.90	10.80	4.10
Unplanned unavailable hours	1.90	0.40	0	1.30	0	0	0	0
Fault exposure hours	0	126.90	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00
Train 2								
Planned unavailable hours	5.80	5.90	1.90	1.70	4.10	1.60	4.40	3.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00
Indicator value	**0.9%**	**1.1%**	**0.9%**	**0.8%**	**0.7%**	**0.7%**	**0.7%**	**0.7%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Train 1								
Planned unavailable hours	21.20	1.80	3.20	7.50	1.40	2.90	49.20	4.10
Unplanned unavailable hours	0	0	0	0	0	0	8.10	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00
Train 2								
Planned unavailable hours	22.90	12.70	1.90	7.50	4.10	73.70	12.30	1.70
Unplanned unavailable hours	0	0	0.50	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00
Train 3								
Planned unavailable hours	0.90	1.80	3.20	23.80	1.40	3.20	2.90	4.10
Unplanned unavailable hours	6.60	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00
Train 4								
Planned unavailable hours	39.90	5.90	1.90	1.70	4.10	1.60	28.30	1.70
Unplanned unavailable hours	6.60	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0

Required hours	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00
Indicator value	**0.6%**	**0.6%**	**0.3%**	**0.3%**	**0.2%**	**0.3%**	**0.4%**	**0.4%**

Licensee Comments: none

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	**3Q/01**	**4Q/01**	**1Q/02**	**2Q/02**	**3Q/02**	**4Q/02**	**1Q/03**	**2Q/03**
Train 1								
Planned unavailable hours	1.80	3.90	4.70	5.50	3.10	6.10	4.60	6.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00
Train 2								
Planned unavailable hours	1.70	9.30	38.60	3.10	19.80	13.20	6.30	43.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00

Indicator value	**0.6%**	**0.5%**	**0.5%**	**0.5%**	**0.4%**	**0.4%**	**0.3%**	**0.4%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	**3Q/01**	**4Q/01**	**1Q/02**	**2Q/02**	**3Q/02**	**4Q/02**	**1Q/03**	**2Q/03**
Train 1								
Planned unavailable hours	0.20	1.80	28.90	7.90	12.30	2.90	2.90	64.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00
Train 2								
Planned unavailable hours	0.50	5.90	29.90	1.70	4.40	1.60	4.40	51.10
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00
Indicator value	**0.4%**	**0.4%**	**0.5%**	**0.4%**	**0.4%**	**0.4%**	**0.3%**	**0.5%**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Safety System Functional Failures	0	1	0	0	0	0	0	0
Indicator value	**0**	**1**	**1**	**1**	**1**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/01**	**8/01**	**9/01**	**10/01**	**11/01**	**12/01**	**1/02**	**2/02**	**3/02**	**4/02**	**5/02**	**6/02**
Maximum activity	0.000366	0.000407	0.000375	0.000400	0.000413	0.000440	0.000474	0.000438	0.000414	0.000240	0.000260	0.000488
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**7/02**	**8/02**	**9/02**	**10/02**	**11/02**	**12/02**	**1/03**	**2/03**	**3/03**	**4/03**	**5/03**	**6/03**
Maximum activity	0.000295	0.000313	0.000334	0.000333	0.000349	0.000364	0.000386	0.000662	0.000478	0.000426	0.000439	0.000420
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	7/01	8/01	9/01	10/01	11/01	12/01	1/02	2/02	3/02	4/02	5/02	6/02
Maximum leakage	0.505	0.502	0.581	0.744	0.613	0.830	0.713	0.934	1.057	0.092	0.103	0.092
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**5.0**	**5.0**	**5.8**	**7.4**	**6.1**	**8.3**	**7.1**	**9.3**	**10.6**	**0.9**	**1.0**	**0.9**

Reactor Coolant System Leakage	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03
Maximum leakage	0.078	0.151	0.076	0.139	0.097	0.083	0.074	0.074	0.128	0.061	0.075	0.128
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**1.5**	**0.8**	**1.4**	**1.0**	**0.8**	**0.7**	**0.7**	**1.3**	**0.6**	**0.7**	**1.3**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Successful opportunities	31.0	38.0	34.0	14.0	33.0	43.0	39.0	36.0
Total opportunities	35.0	40.0	36.0	14.0	34.0	47.0	41.0	38.0
Indicator value	**96.0%**	**95.7%**	**94.7%**	**94.2%**	**93.7%**	**93.2%**	**93.9%**	**94.0%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Participating Key personnel	60.0	53.0	50.0	55.0	55.0	54.0	54.0	57.0
Total Key personnel	61.0	56.0	52.0	56.0	55.0	55.0	55.0	57.0
Indicator value	**98.4%**	**94.6%**	**96.2%**	**98.2%**	**100.0%**	**98.2%**	**98.2%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Successful siren-tests	6141	5965	5872	5945	5994	5991	5898	5990
Total sirens-tests	6204	6016	5922	6016	6016	6016	5922	6016
Indicator value	**99.1%**	**99.2%**	**99.2%**	**99.0%**	**99.2%**	**99.3%**	**99.4%**	**99.6%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
IDS compensatory hours	29.12	247.72	62.00	14.60	12.80	34.10	21.90	0
CCTV compensatory hours	0	0	0	13.5	4.3	5.8	21.4	55.9
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.009**	**0.016**	**0.018**	**0.015**	**0.015**	**0.006**	**0.006**	**0.008**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Program failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: July 22, 2003

Byron 1

3Q/2003 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Unplanned scrams	0	0	0	0	2.0	0	0	0
Critical hours	2209.0	1731.3	2183.0	2208.0	2169.9	2160.0	2183.0	2015.2
Indicator value	**0**	**0**	**0**	**0**	**1.7**	**1.6**	**1.6**	**1.6**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Unplanned power changes	1.0	0	0	0	0	0	0	0
Critical hours	2209.0	1731.3	2183.0	2208.0	2169.9	2160.0	2183.0	2015.2
Indicator value	**3.2**	**3.4**	**2.5**	**0.8**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Train 1								
Planned unavailable hours	34.60	3.20	8.00	1.40	2.90	10.80	4.10	3.00
Unplanned unavailable hours	0.40	0	1.30	0	0	0	0	0
Fault exposure hours	126.90	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	5.90	1.90	1.70	4.10	1.60	4.40	3.20	5.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Indicator value	**1.1%**	**0.9%**	**0.8%**	**0.7%**	**0.7%**	**0.7%**	**0.7%**	**0.7%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Train 1								
Planned unavailable hours	1.80	3.20	7.50	1.40	2.90	49.20	4.10	21.90
Unplanned unavailable hours	0	0	0	0	0	8.10	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22
Train 2								
Planned unavailable hours	12.70	1.90	7.50	4.10	73.70	12.30	1.70	39.90
Unplanned unavailable hours	0	0.50	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22
Train 3								
Planned unavailable hours	1.80	3.20	23.80	1.40	3.20	2.90	4.10	15.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22
Train 4								
Planned unavailable hours	5.90	1.90	1.70	4.10	1.60	28.30	1.70	2.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0

Required hours	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22
Indicator value	**0.6%**	**0.3%**	**0.3%**	**0.2%**	**0.3%**	**0.4%**	**0.4%**	**0.5%**

Licensee Comments: none

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	**4Q/01**	**1Q/02**	**2Q/02**	**3Q/02**	**4Q/02**	**1Q/03**	**2Q/03**	**3Q/03**
Train 1								
Planned unavailable hours	3.90	4.70	5.50	3.10	6.10	4.60	6.30	4.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22
Train 2								
Planned unavailable hours	9.30	38.60	3.10	19.80	13.20	6.30	43.30	3.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22

Indicator value	**0.5%**	**0.5%**	**0.5%**	**0.4%**	**0.4%**	**0.3%**	**0.4%**	**0.4%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	**4Q/01**	**1Q/02**	**2Q/02**	**3Q/02**	**4Q/02**	**1Q/03**	**2Q/03**	**3Q/03**
Train 1								
Planned unavailable hours	1.80	28.90	7.90	12.30	2.90	2.90	64.70	12.00
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	5.90	29.90	1.70	4.40	1.60	4.40	51.10	2.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Indicator value	**0.4%**	**0.5%**	**0.4%**	**0.4%**	**0.4%**	**0.3%**	**0.5%**	**0.5%**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Safety System Functional Failures	1	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/01**	**11/01**	**12/01**	**1/02**	**2/02**	**3/02**	**4/02**	**5/02**	**6/02**	**7/02**	**8/02**	**9/02**
Maximum activity	0.000400	0.000413	0.000440	0.000474	0.000438	0.000414	0.000240	0.000260	0.000488	0.000295	0.000313	0.000334
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**10/02**	**11/02**	**12/02**	**1/03**	**2/03**	**3/03**	**4/03**	**5/03**	**6/03**	**7/03**	**8/03**	**9/03**
Maximum activity	0.000333	0.000349	0.000364	0.000386	0.000662	0.000478	0.000426	0.000439	0.000420	0.000427	0.000556	0.000416
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/01	11/01	12/01	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02
Maximum leakage	0.744	0.613	0.830	0.713	0.934	1.057	0.092	0.103	0.092	0.078	0.151	0.076
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**7.4**	**6.1**	**8.3**	**7.1**	**9.3**	**10.6**	**0.9**	**1.0**	**0.9**	**0.8**	**1.5**	**0.8**

Reactor Coolant System Leakage	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03
Maximum leakage	0.139	0.097	0.083	0.074	0.074	0.128	0.061	0.075	0.128	0.068	0.084	0.076
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.4**	**1.0**	**0.8**	**0.7**	**0.7**	**1.3**	**0.6**	**0.7**	**1.3**	**0.7**	**0.8**	**0.8**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Successful opportunities	38.0	34.0	14.0	33.0	43.0	39.0	36.0	45.0
Total opportunities	40.0	36.0	14.0	34.0	47.0	41.0	38.0	47.0
Indicator value	**95.7%**	**94.7%**	**94.2%**	**93.7%**	**93.2%**	**93.9%**	**94.0%**	**94.9%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Participating Key personnel	53.0	50.0	55.0	55.0	54.0	54.0	57.0	59.0
Total Key personnel	56.0	52.0	56.0	55.0	55.0	55.0	57.0	59.0
Indicator value	**94.6%**	**96.2%**	**98.2%**	**100.0%**	**98.2%**	**98.2%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Successful siren-tests	5965	5872	5945	5994	5991	5898	5990	5988
Total sirens-tests	6016	5922	6016	6016	6016	5922	6016	6016
Indicator value	**99.2%**	**99.2%**	**99.0%**	**99.2%**	**99.3%**	**99.4%**	**99.6%**	**99.6%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
IDS compensatory hours	247.72	62.00	14.60	12.80	34.10	21.90	0	5.45
CCTV compensatory hours	0	0	13.5	4.3	5.8	21.4	55.9	19.5
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.016**	**0.018**	**0.015**	**0.015**	**0.006**	**0.006**	**0.008**	**0.008**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Program failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: October 22, 2003

Byron 1

4Q/2003 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Unplanned scrams	0	0	0	2.0	0	0	0	0
Critical hours	1731.3	2183.0	2208.0	2169.9	2160.0	2183.0	2015.2	1910.2
Indicator value	**0**	**0**	**0**	**1.7**	**1.6**	**1.6**	**1.6**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	1731.3	2183.0	2208.0	2169.9	2160.0	2183.0	2015.2	1910.2
Indicator value	**3.4**	**2.5**	**0.8**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Train 1								
Planned unavailable hours	3.20	8.00	1.40	2.90	10.80	4.10	3.00	5.60
Unplanned unavailable hours	0	1.30	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	1.90	1.70	4.10	1.60	4.40	3.20	5.50	2.00
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Indicator value	**0.9%**	**0.8%**	**0.7%**	**0.7%**	**0.7%**	**0.7%**	**0.7%**	**0.6%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Train 1								
Planned unavailable hours	3.20	7.50	1.40	2.90	49.20	4.10	21.90	77.70
Unplanned unavailable hours	0	0	0	0	8.10	0	0	50.70
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20
Train 2								
Planned unavailable hours	1.90	7.50	4.10	73.70	12.30	1.70	39.90	2.00
Unplanned unavailable hours	0.50	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20
Train 3								
Planned unavailable hours	3.20	23.80	1.40	3.20	2.90	4.10	15.50	3.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20
Train 4								
Planned unavailable hours	1.90	1.70	4.10	1.60	28.30	1.70	2.20	3.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0

Required hours	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20
Indicator value	**0.3%**	**0.3%**	**0.2%**	**0.3%**	**0.4%**	**0.4%**	**0.5%**	**0.6%**

Licensee Comments: none

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	**1Q/02**	**2Q/02**	**3Q/02**	**4Q/02**	**1Q/03**	**2Q/03**	**3Q/03**	**4Q/03**
Train 1								
Planned unavailable hours	4.70	5.50	3.10	6.10	4.60	6.30	4.50	4.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20
Train 2								
Planned unavailable hours	38.60	3.10	19.80	13.20	6.30	43.30	3.40	3.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1731.25	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20

Indicator value	**0.5%**	**0.5%**	**0.4%**	**0.4%**	**0.3%**	**0.4%**	**0.4%**	**0.4%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	**1Q/02**	**2Q/02**	**3Q/02**	**4Q/02**	**1Q/03**	**2Q/03**	**3Q/03**	**4Q/03**
Train 1								
Planned unavailable hours	28.90	7.90	12.30	2.90	2.90	64.70	12.00	4.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	29.90	1.70	4.40	1.60	4.40	51.10	2.20	2.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Indicator value	**0.5%**	**0.4%**	**0.4%**	**0.4%**	**0.3%**	**0.5%**	**0.5%**	**0.5%**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/02**	**2/02**	**3/02**	**4/02**	**5/02**	**6/02**	**7/02**	**8/02**	**9/02**	**10/02**	**11/02**	**12/02**
Maximum activity	0.000474	0.000438	0.000414	0.000240	0.000260	0.000488	0.000295	0.000313	0.000334	0.000333	0.000349	0.000364
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**1/03**	**2/03**	**3/03**	**4/03**	**5/03**	**6/03**	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**
Maximum activity	0.000386	0.000662	0.000478	0.000426	0.000439	0.000420	0.000427	0.000556	0.000416	0.003380	0.006810	0.006070
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0.3**	**0.7**	**0.6**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/02	2/02	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02
Maximum leakage	0.713	0.934	1.057	0.092	0.103	0.092	0.078	0.151	0.076	0.139	0.097	0.083
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**7.1**	**9.3**	**10.6**	**0.9**	**1.0**	**0.9**	**0.8**	**1.5**	**0.8**	**1.4**	**1.0**	**0.8**

Reactor Coolant System Leakage	1/03	2/03	3/03	4/03	5/03	6/03	7/03	8/03	9/03	10/03	11/03	12/03
Maximum leakage	0.074	0.074	0.128	0.061	0.075	0.128	0.068	0.084	0.076	0.118	0.142	0.122
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.7**	**0.7**	**1.3**	**0.6**	**0.7**	**1.3**	**0.7**	**0.8**	**0.8**	**1.2**	**1.4**	**1.2**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Successful opportunities	34.0	14.0	33.0	43.0	39.0	36.0	45.0	18.0
Total opportunities	36.0	14.0	34.0	47.0	41.0	38.0	47.0	18.0
Indicator value	**94.7%**	**94.2%**	**93.7%**	**93.2%**	**93.9%**	**94.0%**	**94.9%**	**95.3%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Participating Key personnel	50.0	55.0	55.0	54.0	54.0	57.0	59.0	57.0
Total Key personnel	52.0	56.0	55.0	55.0	55.0	57.0	59.0	58.0
Indicator value	**96.2%**	**98.2%**	**100.0%**	**98.2%**	**98.2%**	**100.0%**	**100.0%**	**98.3%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Successful siren-tests	5872	5945	5994	5991	5898	5990	5988	5997
Total sirens-tests	5922	6016	6016	6016	5922	6016	6016	6016
Indicator value	**99.2%**	**99.0%**	**99.2%**	**99.3%**	**99.4%**	**99.6%**	**99.6%**	**99.6%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
IDS compensatory hours	62.00	14.60	12.80	34.10	21.90	0	5.45	0
CCTV compensatory hours	0	13.5	4.3	5.8	21.4	55.9	19.5	2.4
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.018**	**0.015**	**0.015**	**0.006**	**0.006**	**0.008**	**0.008**	**0.007**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Program failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: January 23, 2004

Byron 1

1Q/2004 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Unplanned scrams	0	0	2.0	0	0	0	0	0
Critical hours	2183.0	2208.0	2169.9	2160.0	2183.0	2015.2	1910.2	2184.0
Indicator value	**0**	**0**	**1.7**	**1.6**	**1.6**	**1.6**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2183.0	2208.0	2169.9	2160.0	2183.0	2015.2	1910.2	2184.0
Indicator value	**2.5**	**0.8**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Train 1								
Planned unavailable hours	8.00	1.40	2.90	10.80	4.10	3.00	5.60	76.10
Unplanned unavailable hours	1.30	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00
Train 2								
Planned unavailable hours	1.70	4.10	1.60	4.40	3.20	5.50	2.00	26.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00
Indicator value	**0.8%**	**0.7%**	**0.7%**	**0.7%**	**0.7%**	**0.7%**	**0.6%**	**0.7%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Train 1								
Planned unavailable hours	7.50	1.40	2.90	49.20	4.10	21.90	77.70	1.50
Unplanned unavailable hours	0	0	0	8.10	0	0	50.70	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00
Train 2								
Planned unavailable hours	7.50	4.10	73.70	12.30	1.70	39.90	2.00	3.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00
Train 3								
Planned unavailable hours	23.80	1.40	3.20	2.90	4.10	15.50	3.50	1.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00
Train 4								
Planned unavailable hours	1.70	4.10	1.60	28.30	1.70	2.20	3.80	3.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00
Indicator value	**0.3%**	**0.2%**	**0.3%**	**0.4%**	**0.4%**	**0.5%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Train 1								
Planned unavailable hours	5.50	3.10	6.10	4.60	6.30	4.50	4.90	2.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00
Train 2								
Planned unavailable hours	3.10	19.80	13.20	6.30	43.30	3.40	3.50	42.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00
Indicator value	**0.5%**	**0.4%**	**0.4%**	**0.3%**	**0.4%**	**0.4%**	**0.4%**	**0.5%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Train 1								
Planned unavailable hours	7.90	12.30	2.90	2.90	64.70	12.00	4.40	1.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00
Train 2								
Planned unavailable hours	1.70	4.40	1.60	4.40	51.10	2.20	2.80	3.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00
Indicator value	**0.4%**	**0.4%**	**0.4%**	**0.3%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/02**	**5/02**	**6/02**	**7/02**	**8/02**	**9/02**	**10/02**	**11/02**	**12/02**	**1/03**	**2/03**	**3/03**
Maximum activity	0.000240	0.000260	0.000488	0.000295	0.000313	0.000334	0.000333	0.000349	0.000364	0.000386	0.000662	0.000478
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**

Reactor Coolant System Activity	**4/03**	**5/03**	**6/03**	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**
Maximum activity	0.000426	0.000439	0.000420	0.000427	0.000556	0.000416	0.003380	0.006810	0.006070	0.014500	0.021600	0.021300
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0.1**	**0**	**0.3**	**0.7**	**0.6**	**1.5**	**2.2**	**2.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/02**	**5/02**	**6/02**	**7/02**	**8/02**	**9/02**	**10/02**	**11/02**	**12/02**	**1/03**	**2/03**	**3/03**
Maximum leakage	0.092	0.103	0.092	0.078	0.151	0.076	0.139	0.097	0.083	0.074	0.074	0.128
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.9**	**1.0**	**0.9**	**0.8**	**1.5**	**0.8**	**1.4**	**1.0**	**0.8**	**0.7**	**0.7**	**1.3**

Reactor Coolant System Leakage	**4/03**	**5/03**	**6/03**	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**
Maximum leakage	0.061	0.075	0.128	0.068	0.084	0.076	0.118	0.142	0.122	0.077	0.083	0.071
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.7**	**1.3**	**0.7**	**0.8**	**0.8**	**1.2**	**1.4**	**1.2**	**0.8**	**0.8**	**0.7**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Successful opportunities	14.0	33.0	43.0	39.0	36.0	45.0	18.0	50.0
Total opportunities	14.0	34.0	47.0	41.0	38.0	47.0	18.0	50.0
Indicator value	**94.2%**	**93.7%**	**93.2%**	**93.9%**	**94.0%**	**94.9%**	**95.3%**	**96.2%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Participating Key personnel	55.0	55.0	54.0	54.0	57.0	59.0	57.0	67.0
Total Key personnel	56.0	55.0	55.0	55.0	57.0	59.0	58.0	68.0
Indicator value	**98.2%**	**100.0%**	**98.2%**	**98.2%**	**100.0%**	**100.0%**	**98.3%**	**98.5%**

Licensee Comments:

1Q/04: Exelon has modified the utility procedure for the calculation of the NEI 99-02, Rev 2, ERO Participation to count individual opportunities for each Shift Manager function. Exelon has adopted the revised calculation beginning with 1Q 2004.

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Successful siren-tests	5945	5994	5991	5898	5990	5988	5997	6000
Total sirens-tests	6016	6016	6016	5922	6016	6016	6016	6016
Indicator value	**99.0%**	**99.2%**	**99.3%**	**99.4%**	**99.6%**	**99.6%**	**99.6%**	**99.6%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Protected Area Security Performance Index

Thresholds: White > 0.080

Notes

Protected Area Security Performance Index	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
IDS compensatory hours	14.60	12.80	34.10	21.90	0	5.45	0	22.85
CCTV compensatory hours	13.5	4.3	5.8	21.4	55.9	19.5	2.4	1.3
IDS normalization factor	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CCTV normalization factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Index Value	**0.015**	**0.015**	**0.006**	**0.006**	**0.008**	**0.008**	**0.007**	**0.006**

Licensee Comments: none

Personnel Screening Program

Thresholds: White > 2.0 Yellow > 5.0

Notes

Personnel Screening Program	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Program failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

FFD/Personnel Reliability

Thresholds: White > 2.0 Yellow > 5.0

Notes

FFD/Personnel Reliability	2Q/02	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04
Program Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

PI Summary | Inspection Findings Summary | Reactor Oversight Process

Last Modified: April 22, 2004

Byron 1

2Q/2004 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Unplanned scrams	0	2.0	0	0	0	0	0	0
Critical hours	2208.0	2169.9	2160.0	2183.0	2015.2	1910.2	2184.0	2183.0
Indicator value	**0**	**1.7**	**1.6**	**1.6**	**1.6**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2208.0	2169.9	2160.0	2183.0	2015.2	1910.2	2184.0	2183.0
Indicator value	**0.8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Train 1								
Planned unavailable hours	1.40	2.90	10.80	4.10	3.00	5.60	76.10	4.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00
Train 2								
Planned unavailable hours	4.10	1.60	4.40	3.20	5.50	2.00	26.80	1.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00
Indicator value	**0.7%**	**0.7%**	**0.7%**	**0.7%**	**0.7%**	**0.6%**	**0.7%**	**0.7%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Train 1								
Planned unavailable hours	1.40	2.90	49.20	4.10	21.90	77.70	1.50	4.20
Unplanned unavailable hours	0	0	8.10	0	0	50.70	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00
Train 2								
Planned unavailable hours	4.10	73.70	12.30	1.70	39.90	2.00	3.70	1.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00
Train 3								
Planned unavailable hours	1.40	3.20	2.90	4.10	15.50	3.50	1.50	4.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00
Train 4								
Planned unavailable hours	4.10	1.60	28.30	1.70	2.20	3.80	3.70	1.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00
Indicator value	**0.2%**	**0.3%**	**0.4%**	**0.4%**	**0.5%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Unavailability, Heat Removal System (AFW)

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Train 1								
Planned unavailable hours	3.10	6.10	4.60	6.30	4.50	4.90	2.30	7.00
Unplanned unavailable hours	0	0	0	0	0	0	0	7.50
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00
Train 2								
Planned unavailable hours	19.80	13.20	6.30	43.30	3.40	3.50	42.30	3.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00
Indicator value	**0.4%**	**0.4%**	**0.3%**	**0.4%**	**0.4%**	**0.4%**	**0.5%**	**0.5%**

Licensee Comments:

2Q/04: 1A Aux Feed Train, 1263 hours of T/2 fault exposure.

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Train 1								
Planned unavailable hours	12.30	2.90	2.90	64.70	12.00	4.40	1.50	4.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00
Train 2								
Planned unavailable hours	4.40	1.60	4.40	51.10	2.20	2.80	3.70	1.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00
Indicator value	**0.4%**	**0.4%**	**0.3%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03	4/03	5/03	6/03
Maximum activity	0.000295	0.000313	0.000334	0.000333	0.000349	0.000364	0.000386	0.000662	0.000478	0.000426	0.000439	0.000420
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**
Reactor Coolant System Activity	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**
Maximum activity	0.000427	0.000556	0.000416	0.003380	0.006810	0.006070	0.014500	0.021600	0.021300	0.023100	0.024500	0.019900
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0.1**	**0**	**0.3**	**0.7**	**0.6**	**1.5**	**2.2**	**2.1**	**2.3**	**2.5**	**2.0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/02**	**8/02**	**9/02**	**10/02**	**11/02**	**12/02**	**1/03**	**2/03**	**3/03**	**4/03**	**5/03**	**6/03**
Maximum leakage	0.078	0.151	0.076	0.139	0.097	0.083	0.074	0.074	0.128	0.061	0.075	0.128
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**1.5**	**0.8**	**1.4**	**1.0**	**0.8**	**0.7**	**0.7**	**1.3**	**0.6**	**0.7**	**1.3**
Reactor Coolant System Leakage	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**
Maximum leakage	0.068	0.084	0.076	0.118	0.142	0.122	0.077	0.083	0.071	0.082	0.067	0.069
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.7**	**0.8**	**0.8**	**1.2**	**1.4**	**1.2**	**0.8**	**0.8**	**0.7**	**0.8**	**0.7**	**0.7**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Successful opportunities	33.0	43.0	39.0	36.0	45.0	18.0	50.0	62.0
Total opportunities	34.0	47.0	41.0	38.0	47.0	18.0	50.0	62.0
Indicator value	**93.7%**	**93.2%**	**93.9%**	**94.0%**	**94.9%**	**95.3%**	**96.2%**	**96.7%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Participating Key personnel	55.0	54.0	54.0	57.0	59.0	57.0	67.0	70.0
Total Key personnel	55.0	55.0	55.0	57.0	59.0	58.0	68.0	72.0
Indicator value	**100.0%**	**98.2%**	**98.2%**	**100.0%**	**100.0%**	**98.3%**	**98.5%**	**97.2%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
Successful siren-tests	5994	5991	5898	5990	5988	5997	6000	5996
Total sirens-tests	6016	6016	5922	6016	6016	6016	6016	6016
Indicator value	**99.2%**	**99.3%**	**99.4%**	**99.6%**	**99.6%**	**99.6%**	**99.6%**	**99.7%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/02	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Byron 1

3Q/2004 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Unplanned scrams	2.0	0	0	0	0	0	0	0
Critical hours	2169.9	2160.0	2183.0	2015.2	1910.2	2184.0	2183.0	2208.0
Indicator value	**1.7**	**1.6**	**1.6**	**1.6**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2169.9	2160.0	2183.0	2015.2	1910.2	2184.0	2183.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Train 1								
Planned unavailable hours	2.90	10.80	4.10	3.00	5.60	76.10	4.20	1.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00
Train 2								
Planned unavailable hours	1.60	4.40	3.20	5.50	2.00	26.80	1.70	3.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00
Indicator value	**0.7%**	**0.7%**	**0.7%**	**0.7%**	**0.6%**	**0.7%**	**0.7%**	**0.7%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Train 1								
Planned unavailable hours	2.90	49.20	4.10	21.90	77.70	1.50	4.20	52.80
Unplanned unavailable hours	0	8.10	0	0	50.70	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00
Train 2								
Planned unavailable hours	73.70	12.30	1.70	39.90	2.00	3.70	1.70	20.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00
Train 3								
Planned unavailable hours	3.20	2.90	4.10	15.50	3.50	1.50	4.20	1.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00
Train 4								
Planned unavailable hours	1.60	28.30	1.70	2.20	3.80	3.70	1.70	26.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00
Indicator value	**0.3%**	**0.4%**	**0.4%**	**0.5%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Train 1								
Planned unavailable hours	6.10	4.60	6.30	4.50	4.90	2.30	7.00	2.90
Unplanned unavailable hours	0	0	0	0	0	0	7.50	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00
Train 2								
Planned unavailable hours	13.20	6.30	43.30	3.40	3.50	42.30	3.40	26.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2169.70	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00
Indicator value	**0.4%**	**0.3%**	**0.4%**	**0.4%**	**0.4%**	**0.5%**	**0.5%**	**0.5%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Train 1								
Planned unavailable hours	2.90	2.90	64.70	12.00	4.40	1.50	4.20	1.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00
Train 2								
Planned unavailable hours	1.60	4.40	51.10	2.20	2.80	3.70	1.90	24.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00
Indicator value	**0.4%**	**0.3%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/02**	**11/02**	**12/02**	**1/03**	**2/03**	**3/03**	**4/03**	**5/03**	**6/03**	**7/03**	**8/03**	**9/03**
Maximum activity	0.000333	0.000349	0.000364	0.000386	0.000662	0.000478	0.000426	0.000439	0.000420	0.000427	0.000556	0.000416
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**
Reactor Coolant System Activity	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**
Maximum activity	0.003380	0.006810	0.006070	0.014500	0.021600	0.021300	0.023100	0.024500	0.019900	0.022700	0.022200	0.022900
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.3**	**0.7**	**0.6**	**1.5**	**2.2**	**2.1**	**2.3**	**2.5**	**2.0**	**2.3**	**2.2**	**2.3**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**10/02**	**11/02**	**12/02**	**1/03**	**2/03**	**3/03**	**4/03**	**5/03**	**6/03**	**7/03**	**8/03**	**9/03**
Maximum leakage	0.139	0.097	0.083	0.074	0.074	0.128	0.061	0.075	0.128	0.068	0.084	0.076
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.4**	**1.0**	**0.8**	**0.7**	**0.7**	**1.3**	**0.6**	**0.7**	**1.3**	**0.7**	**0.8**	**0.8**
Reactor Coolant System Leakage	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**
Maximum leakage	0.118	0.142	0.122	0.077	0.083	0.071	0.082	0.067	0.069	0.067	0.066	0.064
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.4**	**1.2**	**0.8**	**0.8**	**0.7**	**0.8**	**0.7**	**0.7**	**0.7**	**0.7**	**0.6**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Successful opportunities	43.0	39.0	36.0	45.0	18.0	50.0	62.0	93.0
Total opportunities	47.0	41.0	38.0	47.0	18.0	50.0	62.0	94.0
Indicator value	**93.2%**	**93.9%**	**94.0%**	**94.9%**	**95.3%**	**96.2%**	**96.7%**	**97.2%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Participating Key personnel	54.0	54.0	57.0	59.0	57.0	67.0	70.0	76.0
Total Key personnel	55.0	55.0	57.0	59.0	58.0	68.0	72.0	76.0
Indicator value	**98.2%**	**98.2%**	**100.0%**	**100.0%**	**98.3%**	**98.5%**	**97.2%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
Successful siren-tests	5991	5898	5990	5988	5997	6000	5996	6093
Total sirens-tests	6016	5922	6016	6016	6016	6016	6016	6110
Indicator value	**99.3%**	**99.4%**	**99.6%**	**99.6%**	**99.6%**	**99.6%**	**99.7%**	**99.7%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/02	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: October 25, 2004

Byron 1

4Q/2004 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2160.0	2183.0	2015.2	1910.2	2184.0	2183.0	2208.0	2209.0
Indicator value	**1.6**	**1.6**	**1.6**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2160.0	2183.0	2015.2	1910.2	2184.0	2183.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Train 1								
Planned unavailable hours	10.80	4.10	3.00	5.60	76.10	4.20	1.50	14.00
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	4.40	3.20	5.50	2.00	26.80	1.70	3.60	1.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00
Indicator value	**0.7%**	**0.7%**	**0.7%**	**0.6%**	**0.7%**	**0.7%**	**0.7%**	**0.4%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Train 1								
Planned unavailable hours	49.20	4.10	21.90	77.70	1.50	4.20	52.80	3.50
Unplanned unavailable hours	8.10	0	0	50.70	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	12.30	1.70	39.90	2.00	3.70	1.70	20.90	1.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00
Train 3								
Planned unavailable hours	2.90	4.10	15.50	3.50	1.50	4.20	1.50	3.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00
Train 4								
Planned unavailable hours	28.30	1.70	2.20	3.80	3.70	1.70	26.60	1.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00
Indicator value	**0.4%**	**0.4%**	**0.5%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Train 1								
Planned unavailable hours	4.60	6.30	4.50	4.90	2.30	7.00	2.90	5.00
Unplanned unavailable hours	0	0	0	0	0	7.50	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	6.30	43.30	3.40	3.50	42.30	3.40	26.40	5.10
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00
Indicator value	**0.3%**	**0.4%**	**0.4%**	**0.4%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Train 1								
Planned unavailable hours	2.90	64.70	12.00	4.40	1.50	4.20	1.50	14.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	4.40	51.10	2.20	2.80	3.70	1.90	24.30	8.00
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2160.00	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00
Indicator value	**0.3%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.6%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/03**	**2/03**	**3/03**	**4/03**	**5/03**	**6/03**	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**
Maximum activity	0.000386	0.000662	0.000478	0.000426	0.000439	0.000420	0.000427	0.000556	0.000416	0.003380	0.006810	0.006070
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0.3**	**0.7**	**0.6**
Reactor Coolant System Activity	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**
Maximum activity	0.014500	0.021600	0.021300	0.023100	0.024500	0.019900	0.022700	0.022200	0.022900	0.025600	0.028000	0.032200
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**1.5**	**2.2**	**2.1**	**2.3**	**2.5**	**2.0**	**2.3**	**2.2**	**2.3**	**2.6**	**2.8**	**3.2**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/03**	**2/03**	**3/03**	**4/03**	**5/03**	**6/03**	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**
Maximum leakage	0.074	0.074	0.128	0.061	0.075	0.128	0.068	0.084	0.076	0.118	0.142	0.122
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.7**	**0.7**	**1.3**	**0.6**	**0.7**	**1.3**	**0.7**	**0.8**	**0.8**	**1.2**	**1.4**	**1.2**
Reactor Coolant System Leakage	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**
Maximum leakage	0.077	0.083	0.071	0.082	0.067	0.069	0.067	0.066	0.064	0.067	0.063	0.076
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**0.8**	**0.7**	**0.8**	**0.7**	**0.7**	**0.7**	**0.7**	**0.6**	**0.7**	**0.6**	**0.8**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Successful opportunities	39.0	36.0	45.0	18.0	50.0	62.0	93.0	4.0
Total opportunities	41.0	38.0	47.0	18.0	50.0	62.0	94.0	4.0
Indicator value	**93.9%**	**94.0%**	**94.9%**	**95.3%**	**96.2%**	**96.7%**	**97.2%**	**98.0%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Participating Key personnel	54.0	57.0	59.0	57.0	67.0	70.0	76.0	74.0
Total Key personnel	55.0	57.0	59.0	58.0	68.0	72.0	76.0	74.0
Indicator value	**98.2%**	**100.0%**	**100.0%**	**98.3%**	**98.5%**	**97.2%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
Successful siren-tests	5898	5990	5988	5997	6000	5996	6093	6102
Total sirens-tests	5922	6016	6016	6016	6016	6016	6110	6110
Indicator value	**99.4%**	**99.6%**	**99.6%**	**99.6%**	**99.6%**	**99.7%**	**99.7%**	**99.7%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/03	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: March 9, 2005

Byron 1

1Q/2005 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2183.0	2015.2	1910.2	2184.0	2183.0	2208.0	2209.0	1568.5
Indicator value	**1.6**	**1.6**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2183.0	2015.2	1910.2	2184.0	2183.0	2208.0	2209.0	1568.5
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Train 1								
Planned unavailable hours	4.10	3.00	5.60	76.10	4.20	1.50	14.00	2.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00
Train 2								
Planned unavailable hours	3.20	5.50	2.00	26.80	1.70	3.60	1.70	131.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00
Indicator value	**0.7%**	**0.7%**	**0.6%**	**0.7%**	**0.7%**	**0.7%**	**0.4%**	**0.6%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Train 1								
Planned unavailable hours	4.10	21.90	80.70	1.50	4.20	52.80	3.50	5.20
Unplanned unavailable hours	0	0	50.70	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66
Train 2								
Planned unavailable hours	1.70	39.90	2.00	3.70	1.70	20.90	1.70	4.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66
Train 3								
Planned unavailable hours	4.10	15.50	3.50	1.50	4.20	1.50	3.50	68.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66
Train 4								
Planned unavailable hours	1.70	2.20	2.00	3.70	1.70	26.60	1.70	4.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1391.09
Indicator value	**0.4%**	**0.5%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.7%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Train 1								
Planned unavailable hours	6.30	4.50	4.90	2.30	7.00	2.90	5.00	3.10
Unplanned unavailable hours	0	0	0	0	7.50	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66
Train 2								
Planned unavailable hours	43.30	3.40	3.50	42.30	3.40	26.40	5.10	5.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66
Indicator value	**0.4%**	**0.4%**	**0.4%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Train 1								
Planned unavailable hours	64.70	12.00	4.40	1.50	4.20	1.50	14.30	47.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00
Train 2								
Planned unavailable hours	51.10	2.20	2.80	3.70	1.90	24.30	8.00	15.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00
Indicator value	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/03**	**5/03**	**6/03**	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**
Maximum activity	0.000426	0.000439	0.000420	0.000427	0.000556	0.000416	0.003380	0.006810	0.006070	0.014500	0.021600	0.021300
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0.1**	**0**	**0.3**	**0.7**	**0.6**	**1.5**	**2.2**	**2.1**
Reactor Coolant System Activity	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**
Maximum activity	0.023100	0.024500	0.019900	0.022700	0.022200	0.022900	0.025600	0.028000	0.032200	0.037000	0.039500	0.012600
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.3**	**2.5**	**2.0**	**2.3**	**2.2**	**2.3**	**2.6**	**2.8**	**3.2**	**3.7**	**4.0**	**1.3**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/03**	**5/03**	**6/03**	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**
Maximum leakage	0.061	0.075	0.128	0.068	0.084	0.076	0.118	0.142	0.122	0.077	0.083	0.071
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.7**	**1.3**	**0.7**	**0.8**	**0.8**	**1.2**	**1.4**	**1.2**	**0.8**	**0.8**	**0.7**
Reactor Coolant System Leakage	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**
Maximum leakage	0.082	0.067	0.069	0.067	0.066	0.064	0.067	0.063	0.076	0.075	0.095	0.129
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**0.7**	**0.7**	**0.7**	**0.7**	**0.6**	**0.7**	**0.6**	**0.8**	**0.8**	**1.0**	**1.3**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Successful opportunities	36.0	45.0	18.0	50.0	62.0	93.0	4.0	8.0
Total opportunities	38.0	47.0	18.0	50.0	62.0	94.0	4.0	9.0
Indicator value	**94.0%**	**94.9%**	**95.3%**	**96.2%**	**96.7%**	**97.2%**	**98.0%**	**98.1%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Participating Key personnel	57.0	59.0	57.0	67.0	70.0	76.0	74.0	75.0
Total Key personnel	57.0	59.0	58.0	68.0	72.0	76.0	74.0	75.0
Indicator value	**100.0%**	**100.0%**	**98.3%**	**98.5%**	**97.2%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
Successful siren-tests	5990	5988	5997	6000	5996	6093	6102	6004
Total sirens-tests	6016	6016	6016	6016	6016	6110	6110	6016
Indicator value	**99.6%**	**99.6%**	**99.6%**	**99.6%**	**99.7%**	**99.7%**	**99.7%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/03	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: June 17, 2005

Byron 1

2Q/2005 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2015.2	1910.2	2184.0	2183.0	2208.0	2209.0	1559.7	2183.0
Indicator value	**1.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2015.2	1910.2	2184.0	2183.0	2208.0	2209.0	1559.7	2183.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Train 1								
Planned unavailable hours	3.00	5.60	76.10	4.20	1.50	14.00	2.30	11.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00
Train 2								
Planned unavailable hours	5.50	2.00	26.80	1.70	3.60	1.70	131.90	3.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00
Indicator value	**0.7%**	**0.6%**	**0.7%**	**0.7%**	**0.7%**	**0.4%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Train 1								
Planned unavailable hours	21.90	80.70	1.50	4.20	52.80	3.50	5.20	3.30
Unplanned unavailable hours	0	50.70	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00
Train 2								
Planned unavailable hours	39.90	2.00	3.70	1.70	20.90	1.70	4.20	18.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00
Train 3								
Planned unavailable hours	15.50	3.50	1.50	4.20	1.50	3.50	68.60	3.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00
Train 4								
Planned unavailable hours	2.20	2.00	3.70	1.70	26.60	1.70	4.20	27.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1391.09	2183.00
Indicator value	**0.5%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.7%**	**0.7%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Train 1								
Planned unavailable hours	4.50	4.90	2.30	7.00	2.90	5.00	3.10	4.70
Unplanned unavailable hours	0	0	0	7.50	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00
Train 2								
Planned unavailable hours	3.40	3.50	42.30	3.40	26.40	5.10	5.20	6.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2015.22	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00
Indicator value	**0.4%**	**0.4%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Train 1								
Planned unavailable hours	12.00	4.40	1.50	4.20	1.50	14.30	47.30	9.00
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00
Train 2								
Planned unavailable hours	2.20	2.80	3.70	1.90	24.30	8.00	15.50	10.70
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2208.00	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00
Indicator value	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**
Maximum activity	0.000427	0.000556	0.000416	0.003380	0.006810	0.006070	0.014500	0.021600	0.021300	0.023100	0.024500	0.019900
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0.1**	**0**	**0.3**	**0.7**	**0.6**	**1.5**	**2.2**	**2.1**	**2.3**	**2.5**	**2.0**

Reactor Coolant System Activity	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**
Maximum activity	0.022700	0.022200	0.022900	0.025600	0.028000	0.032200	0.037000	0.039500	0.012600	0.016500	0.017400	0.015500
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.3**	**2.2**	**2.3**	**2.6**	**2.8**	**3.2**	**3.7**	**4.0**	**1.3**	**1.7**	**1.7**	**1.6**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/03**	**8/03**	**9/03**	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**
Maximum leakage	0.068	0.084	0.076	0.118	0.142	0.122	0.077	0.083	0.071	0.082	0.067	0.069
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.7**	**0.8**	**0.8**	**1.2**	**1.4**	**1.2**	**0.8**	**0.8**	**0.7**	**0.8**	**0.7**	**0.7**
Reactor Coolant System Leakage	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**
Maximum leakage	0.067	0.066	0.064	0.067	0.063	0.076	0.075	0.095	0.129	0.132	0.131	0.131
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.7**	**0.7**	**0.6**	**0.7**	**0.6**	**0.8**	**0.8**	**1.0**	**1.3**	**1.3**	**1.3**	**1.3**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Successful opportunities	45.0	18.0	50.0	62.0	93.0	4.0	8.0	81.0
Total opportunities	47.0	18.0	50.0	62.0	94.0	4.0	9.0	84.0
Indicator value	**94.9%**	**95.3%**	**96.2%**	**96.7%**	**97.2%**	**98.0%**	**98.1%**	**98.1%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Participating Key personnel	59.0	57.0	67.0	70.0	76.0	74.0	75.0	71.0
Total Key personnel	59.0	58.0	68.0	72.0	76.0	74.0	75.0	71.0
Indicator value	**100.0%**	**98.3%**	**98.5%**	**97.2%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
Successful siren-tests	5988	5997	6000	5996	6093	6102	6004	6006
Total sirens-tests	6016	6016	6016	6016	6110	6110	6016	6015
Indicator value	**99.6%**	**99.6%**	**99.6%**	**99.7%**	**99.7%**	**99.7%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/03	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: August 3, 2005

Byron 1

3Q/2005 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1910.2	2184.0	2183.0	2208.0	2209.0	1559.7	2183.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	1910.2	2184.0	2183.0	2208.0	2209.0	1559.7	2183.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Train 1								
Planned unavailable hours	5.60	76.10	4.20	1.50	14.00	2.30	11.60	1.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	2.00	26.80	1.70	3.60	1.70	131.90	3.80	3.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Indicator value	**0.6%**	**0.7%**	**0.7%**	**0.7%**	**0.4%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Train 1								
Planned unavailable hours	80.70	1.50	4.20	52.80	3.50	5.20	3.30	1.60
Unplanned unavailable hours	50.70	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00
Train 2								
Planned unavailable hours	2.00	3.70	1.70	20.90	1.70	4.20	18.20	3.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00
Train 3								
Planned unavailable hours	3.50	1.50	4.20	1.50	3.50	68.60	3.30	1.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00
Train 4								
Planned unavailable hours	2.00	3.70	1.70	26.60	1.70	4.20	27.20	3.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1910.20	2184.00	2183.00	2208.00	2209.00	1391.09	2183.00	2208.00
Indicator value	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.7%**	**0.7%**	**0.7%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Train 1								
Planned unavailable hours	4.90	2.30	7.00	2.90	5.00	3.10	4.70	3.80
Unplanned unavailable hours	0	0	7.50	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00
Train 2								
Planned unavailable hours	3.50	42.30	3.40	26.40	5.10	5.20	6.60	4.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	1910.20	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00
Indicator value	**0.4%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.4%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Train 1								
Planned unavailable hours	4.40	1.50	4.20	1.50	14.30	47.30	9.00	1.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Train 2								
Planned unavailable hours	2.80	3.70	1.90	24.30	8.00	15.50	10.70	3.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2209.00	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00
Indicator value	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**
Maximum activity	0.003380	0.006810	0.006070	0.014500	0.021600	0.021300	0.023100	0.024500	0.019900	0.022700	0.022200	0.022900
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.3**	**0.7**	**0.6**	**1.5**	**2.2**	**2.1**	**2.3**	**2.5**	**2.0**	**2.3**	**2.2**	**2.3**
Reactor Coolant System Activity	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**
Maximum activity	0.025600	0.028000	0.032200	0.037000	0.039500	0.012600	0.016500	0.017400	0.015500	0.016700	0.017700	0.017700
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.6**	**2.8**	**3.2**	**3.7**	**4.0**	**1.3**	**1.7**	**1.7**	**1.6**	**1.7**	**1.8**	**1.8**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**10/03**	**11/03**	**12/03**	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**
Maximum leakage	0.118	0.142	0.122	0.077	0.083	0.071	0.082	0.067	0.069	0.067	0.066	0.064
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.4**	**1.2**	**0.8**	**0.8**	**0.7**	**0.8**	**0.7**	**0.7**	**0.7**	**0.7**	**0.6**
Reactor Coolant System Leakage	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**
Maximum leakage	0.067	0.063	0.076	0.075	0.095	0.129	0.132	0.131	0.131	0.136	0.120	0.114
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.7**	**0.6**	**0.8**	**0.8**	**1.0**	**1.3**	**1.3**	**1.3**	**1.3**	**1.4**	**1.2**	**1.1**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Successful opportunities	18.0	50.0	62.0	93.0	4.0	8.0	81.0	30.0
Total opportunities	18.0	50.0	62.0	94.0	4.0	9.0	84.0	30.0
Indicator value	**95.3%**	**96.2%**	**96.7%**	**97.2%**	**98.0%**	**98.1%**	**98.1%**	**98.6%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Participating Key personnel	57.0	67.0	70.0	76.0	74.0	75.0	71.0	76.0
Total Key personnel	58.0	68.0	72.0	76.0	74.0	75.0	71.0	76.0
Indicator value	**98.3%**	**98.5%**	**97.2%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
Successful siren-tests	5997	6000	5996	6093	6102	6004	6006	6005
Total sirens-tests	6016	6016	6016	6110	6110	6016	6015	6014
Indicator value	**99.6%**	**99.6%**	**99.7%**	**99.7%**	**99.7%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/03	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: November 3, 2005

Byron 1

4Q/2005 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.0	2183.0	2208.0	2209.0	1559.7	2183.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2184.0	2183.0	2208.0	2209.0	1559.7	2183.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Train 1								
Planned unavailable hours	76.10	4.20	1.50	14.00	2.30	11.60	1.60	11.10
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	26.80	1.70	3.60	1.70	131.90	3.80	3.60	1.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Indicator value	**0.7%**	**0.7%**	**0.7%**	**0.4%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Train 1								
Planned unavailable hours	1.50	4.20	52.80	3.50	5.20	3.30	1.60	3.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	3.70	1.70	20.90	1.70	4.20	18.20	3.60	17.30
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00	2209.00
Train 3								
Planned unavailable hours	1.50	4.20	1.50	3.50	68.60	3.30	1.60	3.20
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00	2209.00
Train 4								
Planned unavailable hours	3.70	1.70	26.60	1.70	4.20	27.20	3.60	1.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	1391.09	2183.00	2208.00	2209.00
Indicator value	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.7%**	**0.7%**	**0.7%**	**0.6%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Train 1								
Planned unavailable hours	2.30	7.00	2.90	5.00	3.10	4.70	3.80	6.00
Unplanned unavailable hours	0	7.50	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	42.30	3.40	26.40	5.10	5.20	6.60	4.80	27.00
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00	2209.00
Indicator value	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.4%**	**0.5%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Train 1								
Planned unavailable hours	1.50	4.20	1.50	14.30	47.30	9.00	1.60	13.50
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Train 2								
Planned unavailable hours	3.70	1.90	24.30	8.00	15.50	10.70	3.60	2.10
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2184.00	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00
Indicator value	**0.5%**	**0.5%**	**0.5%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**
Maximum activity	0.014500	0.021600	0.021300	0.023100	0.024500	0.019900	0.022700	0.022200	0.022900	0.025600	0.028000	0.032200
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**1.5**	**2.2**	**2.1**	**2.3**	**2.5**	**2.0**	**2.3**	**2.2**	**2.3**	**2.6**	**2.8**	**3.2**
Reactor Coolant System Activity	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**
Maximum activity	0.037000	0.039500	0.012600	0.016500	0.017400	0.015500	0.016700	0.017700	0.017700	0.018600	0.019100	0.020200
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**3.7**	**4.0**	**1.3**	**1.7**	**1.7**	**1.6**	**1.7**	**1.8**	**1.8**	**1.9**	**1.9**	**2.0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/04**	**2/04**	**3/04**	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**
Maximum leakage	0.077	0.083	0.071	0.082	0.067	0.069	0.067	0.066	0.064	0.067	0.063	0.076
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**0.8**	**0.7**	**0.8**	**0.7**	**0.7**	**0.7**	**0.7**	**0.6**	**0.7**	**0.6**	**0.8**
Reactor Coolant System Leakage	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**
Maximum leakage	0.075	0.095	0.129	0.132	0.131	0.131	0.136	0.120	0.114	0.108	0.122	0.100
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**1.0**	**1.3**	**1.3**	**1.3**	**1.3**	**1.4**	**1.2**	**1.1**	**1.1**	**1.2**	**1.0**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Successful opportunities	50.0	62.0	93.0	4.0	8.0	81.0	30.0	57.0
Total opportunities	50.0	62.0	94.0	4.0	9.0	84.0	30.0	58.0
Indicator value	**96.2%**	**96.7%**	**97.2%**	**98.0%**	**98.1%**	**98.1%**	**98.6%**	**98.5%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Participating Key personnel	67.0	70.0	76.0	74.0	75.0	71.0	76.0	74.0
Total Key personnel	68.0	72.0	76.0	74.0	75.0	71.0	76.0	74.0
Indicator value	**98.5%**	**97.2%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
Successful siren-tests	6000	5996	6093	6102	6004	6006	6005	6012
Total sirens-tests	6016	6016	6110	6110	6016	6015	6014	6016
Indicator value	**99.6%**	**99.7%**	**99.7%**	**99.7%**	**99.8%**	**99.8%**	**99.8%**	**99.9%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/04	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: January 30, 2006

Byron 1

1Q/2006 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2183.0	2208.0	2209.0	1559.7	2183.0	2208.0	2209.0	2160.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2183.0	2208.0	2209.0	1559.7	2183.0	2208.0	2209.0	2160.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Unavailability, Emergency AC Power

Thresholds: White > 2.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Emergency AC Power	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Train 1								
Planned unavailable hours	4.20	1.50	14.00	2.30	11.60	1.60	11.10	1.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Train 2								
Planned unavailable hours	1.70	3.60	1.70	131.90	3.80	3.60	1.90	3.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Indicator value	**0.7%**	**0.7%**	**0.4%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Unavailability, High Pressure Injection System (HPSI)

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, High Pressure Injection System (HPSI)	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Train 1								
Planned unavailable hours	4.20	52.80	3.50	5.20	3.30	1.60	3.60	1.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00	2209.00	2160.00
Train 2								
Planned unavailable hours	1.70	20.90	1.70	4.20	18.20	3.60	17.30	3.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00	2209.00	2160.00
Train 3								
Planned unavailable hours	4.20	1.50	3.50	68.60	3.30	1.60	3.20	1.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00	2209.00	2160.00
Train 4								
Planned unavailable hours	1.70	26.60	1.70	4.20	27.20	3.60	1.90	46.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1391.09	2183.00	2208.00	2209.00	2160.00
Indicator value	**0.6%**	**0.6%**	**0.6%**	**0.7%**	**0.7%**	**0.7%**	**0.6%**	**0.6%**

Licensee Comments: none

Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Train 1								
Planned unavailable hours	7.00	2.90	5.00	3.10	4.70	3.80	6.00	2.80
Unplanned unavailable hours	7.50	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00	2209.00	2160.00
Train 2								
Planned unavailable hours	3.40	26.40	5.10	5.20	6.60	4.80	27.00	6.40
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1559.66	2183.00	2208.00	2209.00	2160.00
Indicator value	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.4%**	**0.5%**	**0.5%**

Licensee Comments: none

Safety System Unavailability, Residual Heat Removal System

Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Notes

Safety System Unavailability, Residual Heat Removal System	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Train 1								
Planned unavailable hours	4.20	1.50	14.30	47.30	9.00	1.60	13.50	1.80
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Train 2								
Planned unavailable hours	1.90	24.30	8.00	15.50	10.70	3.60	2.10	3.90
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2160.00	2183.00	2208.00	2209.00	2160.00
Indicator value	**0.5%**	**0.5%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**
Maximum activity	0.023100	0.024500	0.019900	0.022700	0.022200	0.022900	0.025600	0.028000	0.032200	0.037000	0.039500	0.012600
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.3**	**2.5**	**2.0**	**2.3**	**2.2**	**2.3**	**2.6**	**2.8**	**3.2**	**3.7**	**4.0**	**1.3**
Reactor Coolant System Activity	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**
Maximum activity	0.016500	0.017400	0.015500	0.016700	0.017700	0.017700	0.018600	0.019100	0.020200	0.020200	0.021500	0.021000
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**1.7**	**1.7**	**1.6**	**1.7**	**1.8**	**1.8**	**1.9**	**1.9**	**2.0**	**2.0**	**2.2**	**2.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/04**	**5/04**	**6/04**	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**
Maximum leakage	0.082	0.067	0.069	0.067	0.066	0.064	0.067	0.063	0.076	0.075	0.095	0.129
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**0.7**	**0.7**	**0.7**	**0.7**	**0.6**	**0.7**	**0.6**	**0.8**	**0.8**	**1.0**	**1.3**
Reactor Coolant System Leakage	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**
Maximum leakage	0.132	0.131	0.131	0.136	0.120	0.114	0.108	0.122	0.100	0.115	0.135	0.120
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.3**	**1.3**	**1.4**	**1.2**	**1.1**	**1.1**	**1.2**	**1.0**	**1.2**	**1.4**	**1.2**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Successful opportunities	62.0	93.0	4.0	8.0	81.0	30.0	57.0	22.0
Total opportunities	62.0	94.0	4.0	9.0	84.0	30.0	58.0	22.0
Indicator value	**96.7%**	**97.2%**	**98.0%**	**98.1%**	**98.1%**	**98.6%**	**98.5%**	**98.3%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Participating Key personnel	70.0	76.0	74.0	75.0	71.0	76.0	74.0	78.0
Total Key personnel	72.0	76.0	74.0	75.0	71.0	76.0	74.0	78.0
Indicator value	**97.2%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
Successful siren-tests	5996	6093	6102	6004	6006	6005	6012	6105
Total sirens-tests	6016	6110	6110	6016	6015	6014	6016	6110
Indicator value	**99.7%**	**99.7%**	**99.7%**	**99.8%**	**99.8%**	**99.8%**	**99.9%**	**99.9%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/04	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: May 5, 2006

Byron 1

2Q/2006 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	1559.7	2183.0	2208.0	2209.0	2160.0	2183.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	1559.7	2183.0	2208.0	2209.0	2160.0	2183.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
UAI (ΔCDF)								-2.40E-08
URI (ΔCDF)								-2.10E-06
PLE								NO
Indicator value								**-2.12E-06**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
UAI (ΔCDF)								8.70E-09
URI (ΔCDF)								1.60E-08
PLE								NO
Indicator value								**2.47E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
UAI (ΔCDF)								-3.60E-07
URI (ΔCDF)								-1.20E-06
PLE								NO
Indicator value								**-1.56E-06**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
UAI (ΔCDF)								1.80E-08
URI (ΔCDF)								-1.10E-07
PLE								NO
Indicator value								**-9.20E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
UAI (ΔCDF)								1.80E-07
URI (ΔCDF)								-7.40E-07
PLE								NO
Indicator value								**-5.60E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**
Maximum activity	0.022700	0.022200	0.022900	0.025600	0.028000	0.032200	0.037000	0.039500	0.012600	0.016500	0.017400	0.015500
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.3**	**2.2**	**2.3**	**2.6**	**2.8**	**3.2**	**3.7**	**4.0**	**1.3**	**1.7**	**1.7**	**1.6**

Reactor Coolant System Activity	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**
Maximum activity	0.016700	0.017700	0.017700	0.018600	0.019100	0.020200	0.020200	0.021500	0.021000	0.021600	0.024600	0.022800
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**1.7**	**1.8**	**1.8**	**1.9**	**1.9**	**2.0**	**2.0**	**2.2**	**2.1**	**2.2**	**2.5**	**2.3**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/04**	**8/04**	**9/04**	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**
Maximum leakage	0.067	0.066	0.064	0.067	0.063	0.076	0.075	0.095	0.129	0.132	0.131	0.131
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.7**	**0.7**	**0.6**	**0.7**	**0.6**	**0.8**	**0.8**	**1.0**	**1.3**	**1.3**	**1.3**	**1.3**
Reactor Coolant System Leakage	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**
Maximum leakage	0.136	0.120	0.114	0.108	0.122	0.100	0.115	0.135	0.120	0.125	0.128	0.158
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.4**	**1.2**	**1.1**	**1.1**	**1.2**	**1.0**	**1.2**	**1.4**	**1.2**	**1.3**	**1.3**	**1.6**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
Successful opportunities	93.0	4.0	8.0	81.0	30.0	57.0	22.0	12.0
Total opportunities	94.0	4.0	9.0	84.0	30.0	58.0	22.0	12.0
Indicator value	**97.2%**	**98.0%**	**98.1%**	**98.1%**	**98.6%**	**98.5%**	**98.3%**	**98.1%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
Participating Key personnel	76.0	74.0	75.0	71.0	76.0	74.0	78.0	78.0
Total Key personnel	76.0	74.0	75.0	71.0	76.0	74.0	78.0	78.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
Successful siren-tests	6093	6102	6004	6006	6005	6012	6105	6005
Total sirens-tests	6110	6110	6016	6015	6014	6016	6110	6012
Indicator value	**99.7%**	**99.7%**	**99.8%**	**99.8%**	**99.8%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/04	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: August 2, 2006

Byron 1

3Q/2006 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2209.0	1559.7	2183.0	2208.0	2209.0	2160.0	2183.0	1727.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2209.0	1559.7	2183.0	2208.0	2209.0	2160.0	2183.0	1727.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
Safety System Functional Failures	0	0	0	0	0	0	1	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/04**	**1Q/05**	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**
UAI (ΔCDF)							-2.40E-08	-4.50E-08
URI (ΔCDF)							-2.10E-06	-2.50E-06
PLE							NO	NO
Indicator value							**-2.12E-06**	**-2.55E-06**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**4Q/04**	**1Q/05**	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**
UAI (ΔCDF)							8.70E-09	1.10E-08
URI (ΔCDF)							1.60E-08	1.60E-08
PLE							NO	NO
Indicator value							**2.47E-08**	**2.70E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
UAI (ΔCDF)							-3.60E-07	-2.80E-07
URI (ΔCDF)							-1.20E-06	-1.20E-06
PLE							NO	NO
Indicator value							**-1.56E-06**	**-1.48E-06**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
UAI (ΔCDF)							1.80E-08	1.90E-08
URI (ΔCDF)							-1.10E-07	-1.30E-07
PLE							NO	NO
Indicator value							**-9.20E-08**	**-1.11E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**4Q/04**	**1Q/05**	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**
UAI (ΔCDF)							1.80E-07	1.20E-07
URI (ΔCDF)							-7.40E-07	-7.50E-07
PLE							NO	NO
Indicator value							**-5.60E-07**	**-6.30E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**
Maximum activity	0.025600	0.028000	0.032200	0.037000	0.039500	0.012600	0.016500	0.017400	0.015500	0.016700	0.017700	0.017700
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.6**	**2.8**	**3.2**	**3.7**	**4.0**	**1.3**	**1.7**	**1.7**	**1.6**	**1.7**	**1.8**	**1.8**
Reactor Coolant System Activity	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**
Maximum activity	0.018600	0.019100	0.020200	0.020200	0.021500	0.021000	0.021600	0.024600	0.022800	0.025400	0.023300	0.037300
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**1.9**	**1.9**	**2.0**	**2.0**	**2.2**	**2.1**	**2.2**	**2.5**	**2.3**	**2.5**	**2.3**	**3.7**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**10/04**	**11/04**	**12/04**	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**
Maximum leakage	0.067	0.063	0.076	0.075	0.095	0.129	0.132	0.131	0.131	0.136	0.120	0.114
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.7**	**0.6**	**0.8**	**0.8**	**1.0**	**1.3**	**1.3**	**1.3**	**1.3**	**1.4**	**1.2**	**1.1**
Reactor Coolant System Leakage	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**
Maximum leakage	0.108	0.122	0.100	0.115	0.135	0.120	0.125	0.128	0.158	0.164	0.377	0.361
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.2**	**1.0**	**1.2**	**1.4**	**1.2**	**1.3**	**1.3**	**1.6**	**1.6**	**3.8**	**3.6**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
Successful opportunities	4.0	8.0	81.0	30.0	57.0	22.0	12.0	136.0
Total opportunities	4.0	9.0	84.0	30.0	58.0	22.0	12.0	139.0
Indicator value	**98.0%**	**98.1%**	**98.1%**	**98.6%**	**98.5%**	**98.3%**	**98.1%**	**97.8%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
Participating Key personnel	74.0	75.0	71.0	76.0	74.0	78.0	78.0	76.0
Total Key personnel	74.0	75.0	71.0	76.0	74.0	78.0	78.0	76.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
Successful siren-tests	6102	6004	6006	6005	6012	6105	6005	5988
Total sirens-tests	6110	6016	6015	6014	6016	6110	6012	6012
Indicator value	**99.7%**	**99.8%**	**99.8%**	**99.8%**	**99.9%**	**99.9%**	**99.9%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/04	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: November 6, 2006

Byron 1

4Q/2006 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1559.7	2183.0	2208.0	2209.0	2160.0	2183.0	1727.0	1855.6
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	1559.7	2183.0	2208.0	2209.0	2160.0	2183.0	1727.0	1855.6
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
Safety System Functional Failures	0	0	0	0	0	1	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**1Q/05**	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**
UAI (ΔCDF)						-9.30E-10	-6.70E-09	7.30E-08
URI (ΔCDF)						-2.10E-06	-2.50E-06	-2.50E-06
PLE						NO	NO	NO
Indicator value						**-2.10E-06**	**-2.51E-06**	**-2.43E-06**

Licensee Comments:

4Q/06: Changed PRA Parameter(s). Corrections made to historical actual UA and Baseline UA

3Q/06: Changed PRA Parameter(s).

2Q/06: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**1Q/05**	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**
UAI (ΔCDF)						4.50E-08	4.60E-08	3.10E-08
URI (ΔCDF)						1.60E-08	1.60E-08	-1.40E-08
PLE						NO	NO	NO
Indicator value						**6.10E-08**	**6.20E-08**	**1.70E-08**

Licensee Comments:

4Q/06: Changed PRA Parameter(s). Corrections made to historical actual UA and Baseline UA

3Q/06: Changed PRA Parameter(s).

2Q/06: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
UAI (ΔCDF)						-3.60E-07	-3.00E-07	8.70E-08
URI (ΔCDF)						-1.20E-06	-1.20E-06	-1.10E-06
PLE						NO	NO	NO
Indicator value						**-1.56E-06**	**-1.50E-06**	**-1.01E-06**

Licensee Comments:

4Q/06: Changed PRA Parameter(s).

3Q/06: Changed PRA Parameter(s).

2Q/06: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**1Q/05**	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**
UAI (ΔCDF)						-2.60E-08	-2.60E-08	1.60E-08
URI (ΔCDF)						-1.10E-07	-1.30E-07	-1.30E-07
PLE						NO	NO	NO
Indicator value						**-1.36E-07**	**-1.56E-07**	**-1.14E-07**

Licensee Comments:

4Q/06: Changed PRA Parameter(s). Corrections made to historical actual UA and Baseline UA

3Q/06: Changed PRA Parameter(s).

2Q/06: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
UAI (ΔCDF)						2.50E-07	2.20E-07	1.10E-07
URI (ΔCDF)						-7.50E-07	-7.50E-07	-7.50E-07
PLE						NO	NO	NO
Indicator value						**-5.00E-07**	**-5.30E-07**	**-6.40E-07**

Licensee Comments:

4Q/06: Changed PRA Parameter(s).

3Q/06: Changed PRA Parameter(s).

2Q/06: Changed PRA Parameter(s).

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**
Maximum activity	0.037000	0.039500	0.012600	0.016500	0.017400	0.015500	0.016700	0.017700	0.017700	0.018600	0.019100	0.020200
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**3.7**	**4.0**	**1.3**	**1.7**	**1.7**	**1.6**	**1.7**	**1.8**	**1.8**	**1.9**	**1.9**	**2.0**
Reactor Coolant System Activity	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**
Maximum activity	0.020200	0.021500	0.021000	0.021600	0.024600	0.022800	0.025400	0.023300	0.037300	0.005910	0.007650	0.005730
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.0**	**2.2**	**2.1**	**2.2**	**2.5**	**2.3**	**2.5**	**2.3**	**3.7**	**0.6**	**0.8**	**0.6**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/05**	**2/05**	**3/05**	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**
Maximum leakage	0.075	0.095	0.129	0.132	0.131	0.131	0.136	0.120	0.114	0.108	0.122	0.100
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**1.0**	**1.3**	**1.3**	**1.3**	**1.3**	**1.4**	**1.2**	**1.1**	**1.1**	**1.2**	**1.0**
Reactor Coolant System Leakage	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**
Maximum leakage	0.115	0.135	0.120	0.125	0.128	0.158	0.164	0.377	0.361	0.159	0.149	0.131
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.4**	**1.2**	**1.3**	**1.3**	**1.6**	**1.6**	**3.8**	**3.6**	**1.6**	**1.5**	**1.3**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
Successful opportunities	8.0	81.0	30.0	57.0	22.0	12.0	136.0	40.0
Total opportunities	9.0	84.0	30.0	58.0	22.0	12.0	139.0	40.0
Indicator value	**98.1%**	**98.1%**	**98.6%**	**98.5%**	**98.3%**	**98.1%**	**97.8%**	**98.0%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
Participating Key personnel	75.0	71.0	76.0	74.0	78.0	78.0	76.0	76.0
Total Key personnel	75.0	71.0	76.0	74.0	78.0	78.0	76.0	76.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
Successful siren-tests	6004	6006	6005	6012	6105	6005	5988	5915
Total sirens-tests	6016	6015	6014	6016	6110	6012	6012	5922
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.9%**	**99.9%**	**99.9%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/05	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: February 7, 2007

Byron 1

1Q/2007 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2183.0	2208.0	2209.0	2160.0	2183.0	1727.0	1855.6	2159.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2183.0	2208.0	2209.0	2160.0	2183.0	1727.0	1855.6	2159.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07
Safety System Functional Failures	0	0	0	0	1	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**
UAI (ΔCDF)					-9.30E-10	-6.70E-09	7.30E-08	7.30E-08
URI (ΔCDF)					-2.10E-06	-2.50E-06	-2.50E-06	-2.50E-06
PLE					NO	NO	NO	NO
Indicator value					**-2.10E-06**	**-2.51E-06**	**-2.43E-06**	**-2.43E-06**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**
UAI (ΔCDF)					4.50E-08	4.60E-08	3.10E-08	3.10E-08
URI (ΔCDF)					1.60E-08	1.60E-08	-1.40E-08	-1.40E-08
PLE					NO	NO	NO	NO
Indicator value					**6.10E-08**	**6.20E-08**	**1.70E-08**	**1.70E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**
UAI (ΔCDF)					-3.60E-07	-3.00E-07	8.70E-08	1.00E-07
URI (ΔCDF)					-1.20E-06	-1.20E-06	-1.10E-06	-1.10E-06
PLE					NO	NO	NO	NO
Indicator value					**-1.56E-06**	**-1.50E-06**	**-1.01E-06**	**-1.00E-06**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**
UAI (ΔCDF)					-2.60E-08	-2.60E-08	1.60E-08	1.70E-08
URI (ΔCDF)					-1.10E-07	-1.30E-07	-1.30E-07	-1.30E-07
PLE					NO	NO	NO	NO
Indicator value					**-1.36E-07**	**-1.56E-07**	**-1.14E-07**	**-1.13E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**
UAI (ΔCDF)					2.50E-07	2.20E-07	1.00E-07	1.10E-07
URI (ΔCDF)					-7.50E-07	-7.50E-07	-7.50E-07	-7.50E-07
PLE					NO	NO	NO	NO
Indicator value					**-5.00E-07**	**-5.30E-07**	**-6.50E-07**	**-6.40E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**
Maximum activity	0.016500	0.017400	0.015500	0.016700	0.017700	0.017700	0.018600	0.019100	0.020200	0.020200	0.021500	0.021000
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**1.7**	**1.7**	**1.6**	**1.7**	**1.8**	**1.8**	**1.9**	**1.9**	**2.0**	**2.0**	**2.2**	**2.1**

Reactor Coolant System Activity	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**
Maximum activity	0.021600	0.024600	0.022800	0.025400	0.023300	0.037300	0.005910	0.007650	0.005730	0.006490	0.006950	0.006230
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.2**	**2.5**	**2.3**	**2.5**	**2.3**	**3.7**	**0.6**	**0.8**	**0.6**	**0.6**	**0.7**	**0.6**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/05**	**5/05**	**6/05**	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**
Maximum leakage	0.132	0.131	0.131	0.136	0.120	0.114	0.108	0.122	0.100	0.115	0.135	0.120
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.3**	**1.3**	**1.4**	**1.2**	**1.1**	**1.1**	**1.2**	**1.0**	**1.2**	**1.4**	**1.2**
Reactor Coolant System Leakage	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**
Maximum leakage	0.125	0.128	0.158	0.164	0.377	0.361	0.159	0.149	0.131	0.136	0.128	0.125
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.3**	**1.6**	**1.6**	**3.8**	**3.6**	**1.6**	**1.5**	**1.3**	**1.4**	**1.3**	**1.3**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07
Successful opportunities	81.0	30.0	57.0	22.0	12.0	136.0	40.0	10.0
Total opportunities	84.0	30.0	58.0	22.0	12.0	139.0	40.0	10.0
Indicator value	**98.1%**	**98.6%**	**98.5%**	**98.3%**	**98.1%**	**97.8%**	**98.0%**	**98.2%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	**2Q/05**	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**
Participating Key personnel	71.0	76.0	74.0	78.0	78.0	76.0	76.0	71.0
Total Key personnel	71.0	76.0	74.0	78.0	78.0	76.0	76.0	71.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07
Successful siren-tests	6006	6005	6012	6105	6005	5988	5915	6008
Total sirens-tests	6015	6014	6016	6110	6012	6012	5922	6016
Indicator value	**99.8%**	**99.8%**	**99.9%**	**99.9%**	**99.9%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/05	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: June 1, 2007

Byron 1

2Q/2007 Performance Indicators

Licensee's General Comments: none

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	2160.0	2183.0	1727.0	1855.6	2159.0	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Scrams with Loss of Normal Heat Removal

Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Notes

Scrams with Loss of Normal Heat Removal	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07
Scrams	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	2160.0	2183.0	1727.0	1855.6	2159.0	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07
Safety System Functional Failures	0	0	0	1	0	0	0	0
Indicator value	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**
UAI (ΔCDF)				-9.30E-10	-6.70E-09	7.30E-08	7.30E-08	8.90E-08
URI (ΔCDF)				-2.10E-06	-2.50E-06	-2.50E-06	-2.50E-06	-2.60E-06
PLE				NO	NO	NO	NO	NO
Indicator value				**-2.10E-06**	**-2.51E-06**	**-2.43E-06**	**-2.43E-06**	**-2.51E-06**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**
UAI (ΔCDF)				4.50E-08	4.60E-08	3.10E-08	3.10E-08	3.10E-08
URI (ΔCDF)				1.60E-08	1.60E-08	-1.40E-08	-1.40E-08	-1.40E-08
PLE				NO	NO	NO	NO	NO
Indicator value				**6.10E-08**	**6.20E-08**	**1.70E-08**	**1.70E-08**	**1.70E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**
UAI (ΔCDF)				-3.60E-07	-3.00E-07	8.70E-08	1.00E-07	9.70E-08
URI (ΔCDF)				-1.20E-06	-1.20E-06	-1.10E-06	-1.10E-06	-1.10E-06
PLE				NO	NO	NO	NO	NO
Indicator value				**-1.56E-06**	**-1.50E-06**	**-1.01E-06**	**-1.00E-06**	**-1.00E-06**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**
UAI (ΔCDF)				-2.60E-08	-2.60E-08	1.60E-08	1.70E-08	1.70E-08
URI (ΔCDF)				-1.10E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07
PLE				NO	NO	NO	NO	NO
Indicator value				**-1.36E-07**	**-1.56E-07**	**-1.14E-07**	**-1.13E-07**	**-1.13E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**3Q/05**	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**
UAI (ΔCDF)				2.50E-07	2.20E-07	1.00E-07	1.10E-07	2.60E-08
URI (ΔCDF)				-7.50E-07	-7.50E-07	-7.50E-07	-7.50E-07	-7.60E-07
PLE				NO	NO	NO	NO	NO
Indicator value				**-5.00E-07**	**-5.30E-07**	**-6.50E-07**	**-6.40E-07**	**-7.34E-07**

Licensee Comments:

2Q/07: Changed PRA Parameter(s).

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**
Maximum activity	0.016700	0.017700	0.017700	0.018600	0.019100	0.020200	0.020200	0.021500	0.021000	0.021600	0.024600	0.022800
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**1.7**	**1.8**	**1.8**	**1.9**	**1.9**	**2.0**	**2.0**	**2.2**	**2.1**	**2.2**	**2.5**	**2.3**
Reactor Coolant System Activity	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**
Maximum activity	0.025400	0.023300	0.037300	0.005910	0.007650	0.005730	0.006490	0.006950	0.006230	0.006430	0.007010	0.007260
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.5**	**2.3**	**3.7**	**0.6**	**0.8**	**0.6**	**0.6**	**0.7**	**0.6**	**0.6**	**0.7**	**0.7**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/05**	**8/05**	**9/05**	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**
Maximum leakage	0.136	0.120	0.114	0.108	0.122	0.100	0.115	0.135	0.120	0.125	0.128	0.158
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.4**	**1.2**	**1.1**	**1.1**	**1.2**	**1.0**	**1.2**	**1.4**	**1.2**	**1.3**	**1.3**	**1.6**
Reactor Coolant System Leakage	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**
Maximum leakage	0.164	0.377	0.361	0.159	0.149	0.131	0.136	0.128	0.125	0.126	0.118	0.113
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.6**	**3.8**	**3.6**	**1.6**	**1.5**	**1.3**	**1.4**	**1.3**	**1.3**	**1.3**	**1.2**	**1.1**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07
Successful opportunities	30.0	57.0	22.0	12.0	136.0	40.0	10.0	46.0
Total opportunities	30.0	58.0	22.0	12.0	139.0	40.0	10.0	49.0
Indicator value	**98.6%**	**98.5%**	**98.3%**	**98.1%**	**97.8%**	**98.0%**	**98.2%**	**98.1%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07
Participating Key personnel	76.0	74.0	78.0	78.0	76.0	76.0	71.0	66.0
Total Key personnel	76.0	74.0	78.0	78.0	76.0	76.0	71.0	66.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07
Successful siren-tests	6005	6012	6105	6005	5988	5915	6008	5985
Total sirens-tests	6014	6016	6110	6012	6012	5922	6016	6005
Indicator value	**99.8%**	**99.9%**	**99.9%**	**99.9%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/05	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: August 6, 2007

Byron 1

3Q/2007 Performance Indicators

Licensee's General Comments: none

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2209.0	2160.0	2183.0	1727.0	1855.6	2159.0	2184.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2209.0	2160.0	2183.0	1727.0	1855.6	2159.0	2184.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07
Scrams with complications					0	0	0	0
Indicator value								**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07
Safety System Functional Failures	0	0	1	0	0	0	0	0
Indicator value	**0**	**0**	**1**	**1**	**1**	**1**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**
UAI (ΔCDF)			-9.30E-10	-6.70E-09	7.30E-08	7.30E-08	8.90E-08	7.80E-08
URI (ΔCDF)			-2.10E-06	-2.50E-06	-2.50E-06	-2.50E-06	-2.60E-06	-2.60E-06
PLE			NO	NO	NO	NO	NO	NO
Indicator value			**-2.10E-06**	**-2.51E-06**	**-2.43E-06**	**-2.43E-06**	**-2.51E-06**	**-2.52E-06**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**
UAI (ΔCDF)			4.50E-08	4.60E-08	3.10E-08	3.10E-08	3.10E-08	5.80E-08
URI (ΔCDF)			1.60E-08	1.60E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08
PLE			NO	NO	NO	NO	NO	NO
Indicator value			**6.10E-08**	**6.20E-08**	**1.70E-08**	**1.70E-08**	**1.70E-08**	**4.40E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**
UAI (ΔCDF)			-3.60E-07	-3.00E-07	8.70E-08	1.00E-07	9.70E-08	8.80E-08
URI (ΔCDF)			-1.20E-06	-1.20E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06
PLE			NO	NO	NO	NO	NO	NO
Indicator value			**-1.56E-06**	**-1.50E-06**	**-1.01E-06**	**-1.00E-06**	**-1.00E-06**	**-1.01E-06**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**4Q/05**	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**
UAI (ΔCDF)			-2.60E-08	-2.60E-08	1.60E-08	1.70E-08	1.70E-08	-2.60E-08
URI (ΔCDF)			-1.10E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07
PLE			NO	NO	NO	NO	NO	NO
Indicator value			**-1.36E-07**	**-1.56E-07**	**-1.14E-07**	**-1.13E-07**	**-1.13E-07**	**-1.56E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07
UAI (ΔCDF)			2.50E-07	2.20E-07	1.00E-07	1.10E-07	2.60E-08	1.50E-08
URI (ΔCDF)			-7.50E-07	-7.50E-07	-7.50E-07	-7.50E-07	-7.60E-07	-7.60E-07
PLE			NO	NO	NO	NO	NO	NO
Indicator value			**-5.00E-07**	**-5.30E-07**	**-6.50E-07**	**-6.40E-07**	**-7.34E-07**	**-7.45E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**
Maximum activity	0.018600	0.019100	0.020200	0.020200	0.021500	0.021000	0.021600	0.024600	0.022800	0.025400	0.023300	0.037300
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**1.9**	**1.9**	**2.0**	**2.0**	**2.2**	**2.1**	**2.2**	**2.5**	**2.3**	**2.5**	**2.3**	**3.7**
Reactor Coolant System Activity	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**
Maximum activity	0.005910	0.007650	0.005730	0.006490	0.006950	0.006230	0.006430	0.007010	0.007260	0.007640	0.007650	0.007380
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.6**	**0.8**	**0.6**	**0.6**	**0.7**	**0.6**	**0.6**	**0.7**	**0.7**	**0.8**	**0.8**	**0.7**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**10/05**	**11/05**	**12/05**	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**
Maximum leakage	0.108	0.122	0.100	0.115	0.135	0.120	0.125	0.128	0.158	0.164	0.377	0.361
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.2**	**1.0**	**1.2**	**1.4**	**1.2**	**1.3**	**1.3**	**1.6**	**1.6**	**3.8**	**3.6**
Reactor Coolant System Leakage	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**
Maximum leakage	0.159	0.149	0.131	0.136	0.128	0.125	0.126	0.118	0.113	0.121	0.115	0.112
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.6**	**1.5**	**1.3**	**1.4**	**1.3**	**1.3**	**1.3**	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07
Successful opportunities	57.0	22.0	12.0	136.0	40.0	10.0	45.0	43.0
Total opportunities	58.0	22.0	12.0	139.0	40.0	10.0	49.0	44.0
Indicator value	**98.5%**	**98.3%**	**98.1%**	**97.8%**	**98.0%**	**98.2%**	**97.8%**	**97.6%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07
Participating Key personnel	74.0	78.0	78.0	76.0	76.0	71.0	66.0	75.0
Total Key personnel	74.0	78.0	78.0	76.0	76.0	71.0	66.0	75.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07
Successful siren-tests	6012	6105	6005	5988	5915	6008	5985	5988
Total sirens-tests	6016	6110	6012	6012	5922	6016	6005	6009
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/05	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: December 7, 2007

Byron 1

4Q/2007 Performance Indicators

Licensee's General Comments: none

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2160.0	2183.0	1727.0	1855.6	2159.0	2184.0	2208.0	1944.2
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2160.0	2183.0	1727.0	1855.6	2159.0	2184.0	2208.0	1944.2
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07
Scrams with complications				0	0	0	0	0
Indicator value							**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07
Safety System Functional Failures	0	1	0	0	0	0	0	0
Indicator value	**0**	**1**	**1**	**1**	**1**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**
UAI (ΔCDF)		-9.30E-10	-6.70E-09	7.30E-08	7.30E-08	8.90E-08	7.80E-08	7.50E-08
URI (ΔCDF)		-2.10E-06	-2.50E-06	-2.50E-06	-2.50E-06	-2.60E-06	-2.60E-06	-2.60E-06
PLE		NO	NO	NO	NO	NO	NO	NO
Indicator value		**-2.10E-06**	**-2.51E-06**	**-2.43E-06**	**-2.43E-06**	**-2.51E-06**	**-2.52E-06**	**-2.53E-06**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**
UAI (ΔCDF)		4.50E-08	4.60E-08	3.10E-08	3.10E-08	3.10E-08	5.80E-08	5.90E-08
URI (ΔCDF)		1.60E-08	1.60E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08
PLE		NO	NO	NO	NO	NO	NO	NO
Indicator value		**6.10E-08**	**6.20E-08**	**1.70E-08**	**1.70E-08**	**1.70E-08**	**4.40E-08**	**4.50E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**
UAI (ΔCDF)		-3.60E-07	-3.00E-07	8.70E-08	1.00E-07	9.70E-08	8.80E-08	8.50E-08
URI (ΔCDF)		-1.20E-06	-1.20E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06
PLE		NO	NO	NO	NO	NO	NO	NO
Indicator value		**-1.56E-06**	**-1.50E-06**	**-1.01E-06**	**-1.00E-06**	**-1.00E-06**	**-1.01E-06**	**-1.02E-06**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**
UAI (ΔCDF)		-2.60E-08	-2.60E-08	1.60E-08	1.70E-08	1.70E-08	-2.60E-08	4.70E-08
URI (ΔCDF)		-1.10E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.40E-07
PLE		NO	NO	NO	NO	NO	NO	NO
Indicator value		**-1.36E-07**	**-1.56E-07**	**-1.14E-07**	**-1.13E-07**	**-1.13E-07**	**-1.56E-07**	**-9.30E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**1Q/06**	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**
UAI (ΔCDF)		2.50E-07	2.20E-07	1.00E-07	1.10E-07	2.60E-08	1.50E-08	1.70E-08
URI (ΔCDF)		-7.50E-07	-7.50E-07	-7.50E-07	-7.50E-07	-7.60E-07	-7.60E-07	-7.60E-07
PLE		NO	NO	NO	NO	NO	NO	NO
Indicator value		**-5.00E-07**	**-5.30E-07**	**-6.50E-07**	**-6.40E-07**	**-7.34E-07**	**-7.45E-07**	**-7.43E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**
Maximum activity	0.020200	0.021500	0.021000	0.021600	0.024600	0.022800	0.025400	0.023300	0.037300	0.005910	0.007650	0.005730
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.0**	**2.2**	**2.1**	**2.2**	**2.5**	**2.3**	**2.5**	**2.3**	**3.7**	**0.6**	**0.8**	**0.6**
Reactor Coolant System Activity	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**
Maximum activity	0.006490	0.006950	0.006230	0.006430	0.007010	0.007260	0.007640	0.007650	0.007380	0.008000	0.009550	0.008750
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.6**	**0.7**	**0.6**	**0.6**	**0.7**	**0.7**	**0.8**	**0.8**	**0.7**	**0.8**	**1.0**	**0.9**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/06**	**2/06**	**3/06**	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**
Maximum leakage	0.115	0.135	0.120	0.125	0.128	0.158	0.164	0.377	0.361	0.159	0.149	0.131
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.4**	**1.2**	**1.3**	**1.3**	**1.6**	**1.6**	**3.8**	**3.6**	**1.6**	**1.5**	**1.3**
Reactor Coolant System Leakage	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**
Maximum leakage	0.136	0.128	0.125	0.126	0.118	0.113	0.121	0.115	0.112	0.132	0.160	0.134
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.4**	**1.3**	**1.3**	**1.3**	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**	**1.3**	**1.6**	**1.3**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07
Successful opportunities	22.0	12.0	136.0	40.0	10.0	45.0	43.0	89.0
Total opportunities	22.0	12.0	139.0	40.0	10.0	49.0	44.0	90.0
Indicator value	**98.3%**	**98.1%**	**97.8%**	**98.0%**	**98.2%**	**97.8%**	**97.6%**	**97.8%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07
Participating Key personnel	78.0	78.0	76.0	76.0	71.0	66.0	75.0	75.0
Total Key personnel	78.0	78.0	76.0	76.0	71.0	66.0	75.0	75.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07
Successful siren-tests	6105	6005	5988	5915	6008	5985	5988	5997
Total sirens-tests	6110	6012	6012	5922	6016	6005	6009	6007
Indicator value	**99.9%**	**99.9%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/06	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: February 4, 2008

Byron 1

1Q/2008 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2183.0	1727.0	1855.6	2159.0	2184.0	2208.0	1944.2	1990.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
Unplanned power changes	0	0	0	0	0	0	1.0	0
Critical hours	2183.0	1727.0	1855.6	2159.0	2184.0	2208.0	1944.2	1990.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0.8**	**0.8**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
Scrams with complications			0	0	0	0	0	0
Indicator value						**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
Safety System Functional Failures	1	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
UAI (ΔCDF)	-9.30E-10	-6.70E-09	7.30E-08	7.30E-08	8.90E-08	7.80E-08	7.50E-08	8.30E-09
URI (ΔCDF)	-2.10E-06	-2.50E-06	-2.50E-06	-2.50E-06	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.10E-06**	**-2.51E-06**	**-2.43E-06**	**-2.43E-06**	**-2.51E-06**	**-2.52E-06**	**-2.53E-06**	**-2.59E-06**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
UAI (ΔCDF)	4.50E-08	4.60E-08	3.10E-08	3.10E-08	3.10E-08	5.80E-08	5.90E-08	4.40E-08
URI (ΔCDF)	1.60E-08	1.60E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**6.10E-08**	**6.20E-08**	**1.70E-08**	**1.70E-08**	**1.70E-08**	**4.40E-08**	**4.50E-08**	**3.00E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
UAI (ΔCDF)	-3.60E-07	-3.00E-07	8.70E-08	1.00E-07	9.70E-08	8.80E-08	8.50E-08	3.20E-07
URI (ΔCDF)	-1.20E-06	-1.20E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	5.00E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.56E-06**	**-1.50E-06**	**-1.01E-06**	**-1.00E-06**	**-1.00E-06**	**-1.01E-06**	**-1.02E-06**	**8.20E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
UAI (ΔCDF)	-2.60E-08	-2.60E-08	1.60E-08	1.70E-08	1.70E-08	-2.60E-08	4.70E-08	1.60E-07
URI (ΔCDF)	-1.10E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.40E-07	-1.20E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.36E-07**	**-1.56E-07**	**-1.14E-07**	**-1.13E-07**	**-1.13E-07**	**-1.56E-07**	**-9.30E-08**	**4.00E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**2Q/06**	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**
UAI (ΔCDF)	2.50E-07	2.20E-07	1.00E-07	1.10E-07	2.60E-08	1.50E-08	1.70E-08	1.60E-08
URI (ΔCDF)	-7.50E-07	-7.50E-07	-7.50E-07	-7.50E-07	-7.60E-07	-7.60E-07	-7.60E-07	-7.60E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.00E-07**	**-5.30E-07**	**-6.50E-07**	**-6.40E-07**	**-7.34E-07**	**-7.45E-07**	**-7.43E-07**	**-7.44E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**
Maximum activity	0.021600	0.024600	0.022800	0.025400	0.023300	0.037300	0.005910	0.007650	0.005730	0.006490	0.006950	0.006230
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.2**	**2.5**	**2.3**	**2.5**	**2.3**	**3.7**	**0.6**	**0.8**	**0.6**	**0.6**	**0.7**	**0.6**

Reactor Coolant System Activity	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**
Maximum activity	0.006430	0.007010	0.007260	0.007640	0.007650	0.007380	0.008000	0.009550	0.008750	0.008660	0.008680	0.010500
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.6**	**0.7**	**0.7**	**0.8**	**0.8**	**0.7**	**0.8**	**1.0**	**0.9**	**0.9**	**0.9**	**1.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/06**	**5/06**	**6/06**	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**
Maximum leakage	0.125	0.128	0.158	0.164	0.377	0.361	0.159	0.149	0.131	0.136	0.128	0.125
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.3**	**1.6**	**1.6**	**3.8**	**3.6**	**1.6**	**1.5**	**1.3**	**1.4**	**1.3**	**1.3**
Reactor Coolant System Leakage	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**
Maximum leakage	0.126	0.118	0.113	0.121	0.115	0.112	0.132	0.160	0.134	0.132	0.130	0.141
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**	**1.3**	**1.6**	**1.3**	**1.3**	**1.3**	**1.4**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
Successful opportunities	12.0	136.0	40.0	10.0	45.0	43.0	88.0	4.0
Total opportunities	12.0	139.0	40.0	10.0	49.0	44.0	90.0	4.0
Indicator value	**98.1%**	**97.8%**	**98.0%**	**98.2%**	**97.8%**	**97.6%**	**97.5%**	**97.4%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
Participating Key personnel	78.0	76.0	76.0	71.0	66.0	75.0	75.0	73.0
Total Key personnel	78.0	76.0	76.0	71.0	66.0	75.0	75.0	73.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
Successful siren-tests	6005	5988	5915	6008	5985	5988	5997	5996
Total sirens-tests	6012	6012	5922	6016	6005	6009	6007	6011
Indicator value	**99.9%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.7%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/06	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Last Modified: April 30, 2008

Byron 1

2Q/2008 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1727.0	1855.6	2159.0	2184.0	2208.0	1944.2	1990.0	1868.7
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
Unplanned power changes	0	0	0	0	0	1.0	0	0
Critical hours	1727.0	1855.6	2159.0	2184.0	2208.0	1944.2	1990.0	1868.7
Indicator value	**0**	**0**	**0**	**0**	**0**	**0.8**	**0.8**	**0.9**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
Scrams with complications		0	0	0	0	0	0	0
Indicator value					**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**
UAI (ΔCDF)	-6.70E-09	7.30E-08	7.30E-08	8.90E-08	7.80E-08	7.50E-08	8.30E-09	-4.50E-08
URI (ΔCDF)	-2.50E-06	-2.50E-06	-2.50E-06	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.51E-06**	**-2.43E-06**	**-2.43E-06**	**-2.51E-06**	**-2.52E-06**	**-2.53E-06**	**-2.59E-06**	**-2.65E-06**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
UAI (ΔCDF)	4.60E-08	3.10E-08	3.10E-08	3.10E-08	5.80E-08	5.90E-08	4.40E-08	2.00E-08
URI (ΔCDF)	1.60E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**6.20E-08**	**1.70E-08**	**1.70E-08**	**1.70E-08**	**4.40E-08**	**4.50E-08**	**3.00E-08**	**6.00E-09**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
UAI (ΔCDF)	-3.00E-07	8.70E-08	1.00E-07	9.70E-08	8.80E-08	8.50E-08	3.20E-07	3.60E-07
URI (ΔCDF)	-1.20E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	5.00E-07	3.10E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.50E-06**	**-1.01E-06**	**-1.00E-06**	**-1.00E-06**	**-1.01E-06**	**-1.02E-06**	**8.20E-07**	**6.70E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
UAI (ΔCDF)	-2.60E-08	1.60E-08	1.70E-08	1.70E-08	-2.60E-08	4.70E-08	1.60E-07	2.00E-07
URI (ΔCDF)	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.40E-07	-1.20E-07	-1.40E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.56E-07**	**-1.14E-07**	**-1.13E-07**	**-1.13E-07**	**-1.56E-07**	**-9.30E-08**	**4.00E-08**	**6.00E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**3Q/06**	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**
UAI (ΔCDF)	2.20E-07	1.00E-07	1.10E-07	2.60E-08	1.50E-08	1.70E-08	1.60E-08	1.80E-08
URI (ΔCDF)	-7.50E-07	-7.50E-07	-7.50E-07	-7.60E-07	-7.60E-07	-7.60E-07	-7.60E-07	-7.60E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.30E-07**	**-6.50E-07**	**-6.40E-07**	**-7.34E-07**	**-7.45E-07**	**-7.43E-07**	**-7.44E-07**	**-7.42E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**
Maximum activity	0.025400	0.023300	0.037300	0.005910	0.007650	0.005730	0.006490	0.006950	0.006230	0.006430	0.007010	0.007260
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**2.5**	**2.3**	**3.7**	**0.6**	**0.8**	**0.6**	**0.6**	**0.7**	**0.6**	**0.6**	**0.7**	**0.7**

Reactor Coolant System Activity	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**
Maximum activity	0.007640	0.007650	0.007380	0.008000	0.009550	0.008750	0.008660	0.008680	0.010500	0.001770	0.001850	0.001920
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.8**	**0.8**	**0.7**	**0.8**	**1.0**	**0.9**	**0.9**	**0.9**	**1.1**	**0.2**	**0.2**	**0.2**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/06**	**8/06**	**9/06**	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**
Maximum leakage	0.164	0.377	0.361	0.159	0.149	0.131	0.136	0.128	0.125	0.126	0.118	0.113
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.6**	**3.8**	**3.6**	**1.6**	**1.5**	**1.3**	**1.4**	**1.3**	**1.3**	**1.3**	**1.2**	**1.1**
Reactor Coolant System Leakage	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**
Maximum leakage	0.121	0.115	0.112	0.132	0.160	0.134	0.132	0.130	0.141	0.140	0.118	0.125
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.2**	**1.1**	**1.3**	**1.6**	**1.3**	**1.3**	**1.3**	**1.4**	**1.4**	**1.2**	**1.3**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
Successful opportunities	136.0	40.0	10.0	45.0	43.0	88.0	4.0	27.0
Total opportunities	139.0	40.0	10.0	49.0	44.0	90.0	4.0	28.0
Indicator value	**97.8%**	**98.0%**	**98.2%**	**97.8%**	**97.6%**	**97.5%**	**97.4%**	**97.3%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
Participating Key personnel	76.0	76.0	71.0	66.0	75.0	75.0	73.0	81.0
Total Key personnel	76.0	76.0	71.0	66.0	75.0	75.0	73.0	81.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
Successful siren-tests	5988	5915	6008	5985	5988	5997	5996	6003
Total sirens-tests	6012	5922	6016	6005	6009	6007	6011	6016
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.7%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
High radiation area occurrences	0	0	0	0	0	0	1	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/06	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Physical Protection information not publicly available.

Byron 1

3Q/2008 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1855.6	2159.0	2184.0	2208.0	1944.2	1990.0	1868.7	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08
Unplanned power changes	0	0	0	0	1.0	0	0	0
Critical hours	1855.6	2159.0	2184.0	2208.0	1944.2	1990.0	1868.7	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0.8**	**0.8**	**0.9**	**0.9**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value				**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**
UAI (ΔCDF)	7.30E-08	7.30E-08	8.90E-08	7.80E-08	7.50E-08	8.30E-09	-4.50E-08	-2.90E-08
URI (ΔCDF)	-2.50E-06	-2.50E-06	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06	-1.40E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.43E-06**	**-2.43E-06**	**-2.51E-06**	**-2.52E-06**	**-2.53E-06**	**-2.59E-06**	**-2.65E-06**	**-1.43E-06**

Licensee Comments:

3Q/08: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**
UAI (ΔCDF)	3.10E-08	3.10E-08	3.10E-08	5.80E-08	5.90E-08	4.40E-08	2.00E-08	4.20E-08
URI (ΔCDF)	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-2.20E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.70E-08**	**1.70E-08**	**1.70E-08**	**4.40E-08**	**4.50E-08**	**3.00E-08**	**6.00E-09**	**2.00E-08**

Licensee Comments:

3Q/08: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**
UAI (ΔCDF)	8.70E-08	1.00E-07	9.70E-08	8.80E-08	8.50E-08	3.20E-07	3.60E-07	1.30E-07
URI (ΔCDF)	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	5.00E-07	3.10E-07	1.70E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.01E-06**	**-1.00E-06**	**-1.00E-06**	**-1.01E-06**	**-1.02E-06**	**8.20E-07**	**6.70E-07**	**3.00E-07**

Licensee Comments:

3Q/08: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**
UAI (ΔCDF)	1.60E-08	1.70E-08	1.70E-08	-2.60E-08	4.70E-08	1.60E-07	2.00E-07	2.50E-07
URI (ΔCDF)	-1.30E-07	-1.30E-07	-1.30E-07	-1.30E-07	-1.40E-07	-1.20E-07	-1.40E-07	-1.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.14E-07**	**-1.13E-07**	**-1.13E-07**	**-1.56E-07**	**-9.30E-08**	**4.00E-08**	**6.00E-08**	**1.00E-07**

Licensee Comments:

3Q/08: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**4Q/06**	**1Q/07**	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**
UAI (ΔCDF)	1.00E-07	1.10E-07	2.60E-08	1.50E-08	1.70E-08	1.60E-08	1.80E-08	2.00E-08
URI (ΔCDF)	-7.50E-07	-7.50E-07	-7.60E-07	-7.60E-07	-7.60E-07	-7.60E-07	-7.60E-07	-3.20E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-6.50E-07**	**-6.40E-07**	**-7.34E-07**	**-7.45E-07**	**-7.43E-07**	**-7.44E-07**	**-7.42E-07**	**-3.00E-07**

Licensee Comments:

3Q/08: Changed PRA Parameter(s).

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**
Maximum activity	0.005910	0.007650	0.005730	0.006490	0.006950	0.006230	0.006430	0.007010	0.007260	0.007640	0.007650	0.007380
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.6**	**0.8**	**0.6**	**0.6**	**0.7**	**0.6**	**0.6**	**0.7**	**0.7**	**0.8**	**0.8**	**0.7**
Reactor Coolant System Activity	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**
Maximum activity	0.008000	0.009550	0.008750	0.008660	0.008680	0.010500	0.001770	0.001850	0.001920	0.001970	0.002050	0.002140
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.8**	**1.0**	**0.9**	**0.9**	**0.9**	**1.1**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**10/06**	**11/06**	**12/06**	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**
Maximum leakage	0.159	0.149	0.131	0.136	0.128	0.125	0.126	0.118	0.113	0.121	0.115	0.112
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.6**	**1.5**	**1.3**	**1.4**	**1.3**	**1.3**	**1.3**	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**
Reactor Coolant System Leakage	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**
Maximum leakage	0.132	0.160	0.134	0.132	0.130	0.141	0.140	0.118	0.125	0.108	0.172	0.123
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.6**	**1.3**	**1.3**	**1.3**	**1.4**	**1.4**	**1.2**	**1.3**	**1.1**	**1.7**	**1.2**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08
Successful opportunities	40.0	10.0	45.0	43.0	88.0	4.0	27.0	62.0
Total opportunities	40.0	10.0	49.0	44.0	90.0	4.0	28.0	64.0
Indicator value	**98.0%**	**98.2%**	**97.8%**	**97.6%**	**97.5%**	**97.4%**	**97.3%**	**97.0%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08
Participating Key personnel	76.0	71.0	66.0	75.0	75.0	73.0	81.0	83.0
Total Key personnel	76.0	71.0	66.0	75.0	75.0	73.0	81.0	83.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08
Successful siren-tests	5915	6008	5985	5988	5997	5996	6003	6006
Total sirens-tests	5922	6016	6005	6009	6007	6011	6016	6108
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.7%**	**99.8%**	**99.4%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08
High radiation area occurrences	0	0	0	0	0	1	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/06	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: November 26, 2008

Byron 1

4Q/2008 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2159.0	2184.0	2208.0	1944.2	1990.0	1868.7	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
Unplanned power changes	0	0	0	1.0	0	0	0	0
Critical hours	2159.0	2184.0	2208.0	1944.2	1990.0	1868.7	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0.8**	**0.8**	**0.9**	**0.9**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
UAI (ΔCDF)	7.30E-08	8.90E-08	7.80E-08	7.50E-08	8.30E-09	-4.50E-08	-2.90E-08	-1.90E-08
URI (ΔCDF)	-2.50E-06	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06	-1.40E-06	-1.40E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.43E-06**	**-2.51E-06**	**-2.52E-06**	**-2.53E-06**	**-2.59E-06**	**-2.65E-06**	**-1.43E-06**	**-1.42E-06**

Licensee Comments:

4Q/08: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
UAI (ΔCDF)	3.10E-08	3.10E-08	5.80E-08	5.90E-08	4.40E-08	2.00E-08	4.20E-08	5.80E-08
URI (ΔCDF)	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-2.20E-08	-2.20E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.70E-08**	**1.70E-08**	**4.40E-08**	**4.50E-08**	**3.00E-08**	**6.00E-09**	**2.00E-08**	**3.60E-08**

Licensee Comments:

4Q/08: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
UAI (ΔCDF)	1.00E-07	9.70E-08	8.80E-08	8.50E-08	3.20E-07	3.60E-07	1.30E-07	1.20E-07
URI (ΔCDF)	-1.10E-06	-1.10E-06	-1.10E-06	-1.10E-06	5.00E-07	3.10E-07	1.70E-07	1.70E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.00E-06**	**-1.00E-06**	**-1.01E-06**	**-1.02E-06**	**8.20E-07**	**6.70E-07**	**3.00E-07**	**2.90E-07**

Licensee Comments:

4Q/08: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
UAI (ΔCDF)	1.70E-08	1.70E-08	-2.60E-08	4.70E-08	1.60E-07	2.00E-07	2.50E-07	2.50E-07
URI (ΔCDF)	-1.30E-07	-1.30E-07	-1.30E-07	-1.40E-07	-1.20E-07	-1.40E-07	-1.50E-07	-1.40E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.13E-07**	**-1.13E-07**	**-1.56E-07**	**-9.30E-08**	**4.00E-08**	**6.00E-08**	**1.00E-07**	**1.10E-07**

Licensee Comments:

4Q/08: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
UAI (ΔCDF)	1.10E-07	2.60E-08	1.50E-08	1.70E-08	1.60E-08	1.80E-08	2.00E-08	1.70E-07
URI (ΔCDF)	-7.50E-07	-7.60E-07	-7.50E-07	-7.50E-07	-7.50E-07	-7.50E-07	-5.20E-07	-5.30E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-6.40E-07**	**-7.34E-07**	**-7.35E-07**	**-7.33E-07**	**-7.34E-07**	**-7.32E-07**	**-5.00E-07**	**-3.60E-07**

Licensee Comments:

4Q/08: Changed PRA Parameter(s). Corrected erroneous FV and URPC values for CC and SX from last PRA Model Update (Ref. IR 841513) Also, corrected Runtime error for 1SX01PB in March 08. (Ref. IR # 854124)

3Q/08: Changed PRA Parameter(s).

2Q/08: Changed PRA Parameter(s).

1Q/08: Changed PRA Parameter(s).

4Q/07: Changed PRA Parameter(s).

3Q/07: Changed PRA Parameter(s).

2Q/06: Corrected erroneous FV and URPC values for CC and SX from last PRA Model Update (Ref. IR 841513) Also, corrected Runtime error for 1SX01PB in March 08. (Ref. IR # 854124)

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**
Maximum activity	0.006490	0.006950	0.006230	0.006430	0.007010	0.007260	0.007640	0.007650	0.007380	0.008000	0.009550	0.008750
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.6**	**0.7**	**0.6**	**0.6**	**0.7**	**0.7**	**0.8**	**0.8**	**0.7**	**0.8**	**1.0**	**0.9**
Reactor Coolant System Activity	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**
Maximum activity	0.008660	0.008680	0.010500	0.001770	0.001850	0.001920	0.001970	0.002050	0.002140	0.002240	0.002400	0.002470
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.9**	**0.9**	**1.1**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/07**	**2/07**	**3/07**	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**
Maximum leakage	0.136	0.128	0.125	0.126	0.118	0.113	0.121	0.115	0.112	0.132	0.160	0.134
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.4**	**1.3**	**1.3**	**1.3**	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**	**1.3**	**1.6**	**1.3**
Reactor Coolant System Leakage	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**
Maximum leakage	0.132	0.130	0.141	0.140	0.118	0.125	0.108	0.172	0.123	0.112	0.113	0.107
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.3**	**1.4**	**1.4**	**1.2**	**1.3**	**1.1**	**1.7**	**1.2**	**1.1**	**1.1**	**1.1**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
Successful opportunities	10.0	45.0	43.0	88.0	4.0	27.0	62.0	53.0
Total opportunities	10.0	49.0	44.0	90.0	4.0	28.0	64.0	55.0
Indicator value	**98.2%**	**97.8%**	**97.6%**	**97.5%**	**97.4%**	**97.3%**	**97.0%**	**96.5%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
Participating Key personnel	71.0	66.0	75.0	75.0	73.0	81.0	83.0	82.0
Total Key personnel	71.0	66.0	75.0	75.0	73.0	81.0	83.0	82.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
Successful siren-tests	6008	5985	5988	5997	5996	6003	6006	5995
Total sirens-tests	6016	6005	6009	6007	6011	6016	6108	6016
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.7%**	**99.8%**	**99.4%**	**99.4%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
High radiation area occurrences	0	0	0	0	1	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/07	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: February 4, 2009

Byron 1

1Q/2009 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	1944.2	1990.0	1868.7	2208.0	2209.0	2159.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Unplanned power changes	0	0	1.0	0	0	0	0	0
Critical hours	2184.0	2208.0	1944.2	1990.0	1868.7	2208.0	2209.0	2159.0
Indicator value	**0**	**0**	**0.8**	**0.8**	**0.9**	**0.9**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value		**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**
UAI (ΔCDF)	8.90E-08	7.80E-08	7.50E-08	8.30E-09	-4.50E-08	-2.90E-08	-1.90E-08	5.10E-08
URI (ΔCDF)	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06	-1.40E-06	-1.40E-06	-1.30E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.51E-06**	**-2.52E-06**	**-2.53E-06**	**-2.59E-06**	**-2.65E-06**	**-1.43E-06**	**-1.42E-06**	**-1.25E-06**

Licensee Comments:

1Q/09: Changed PRA Parameter(s). Demand / Run Time reporting for Reliability changed from actuals to estimated!

2Q/06: Revised PRA parameters per PRA revision 6D. Changed demand and run time reporting from monthly actuals to estimated.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**
UAI (ΔCDF)	3.10E-08	5.80E-08	5.90E-08	4.40E-08	2.00E-08	4.20E-08	5.80E-08	2.20E-08
URI (ΔCDF)	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-2.20E-08	-2.20E-08	-1.10E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.70E-08**	**4.40E-08**	**4.50E-08**	**3.00E-08**	**6.00E-09**	**2.00E-08**	**3.60E-08**	**1.10E-08**

Licensee Comments:

1Q/09: Changed PRA Parameter(s). Demand / Run Time reporting for Reliability changed from actuals to estimated!

2Q/06: Revised PRA parameters per PRA revision 6D. Changed demand and run time reporting from monthly actuals to estimated.

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI (ΔCDF)	9.70E-08	8.80E-08	8.50E-08	3.20E-07	3.60E-07	1.30E-07	1.20E-07	2.10E-07
URI (ΔCDF)	-1.10E-06	-1.10E-06	-1.10E-06	5.00E-07	3.10E-07	1.70E-07	1.70E-07	1.40E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.00E-06**	**-1.01E-06**	**-1.02E-06**	**8.20E-07**	**6.70E-07**	**3.00E-07**	**2.90E-07**	**3.50E-07**

Licensee Comments:

1Q/09: Changed PRA Parameter(s).

2Q/06: Revised PRA parameters per PRA revision 6D.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**2Q/07**	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**
UAI (ΔCDF)	1.70E-08	-2.60E-08	4.70E-08	1.60E-07	2.00E-07	2.50E-07	2.50E-07	2.50E-07
URI (ΔCDF)	-1.30E-07	-1.30E-07	-1.40E-07	-1.20E-07	-1.40E-07	-1.50E-07	-1.40E-07	-1.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.13E-07**	**-1.56E-07**	**-9.30E-08**	**4.00E-08**	**6.00E-08**	**1.00E-07**	**1.10E-07**	**1.00E-07**

Licensee Comments:

1Q/09: Changed PRA Parameter(s). Demand / Run Time reporting for Reliability changed from actuals to estimated!

2Q/06: Revised PRA parameters per PRA revision 6D. Changed demand and run time reporting from monthly actuals to estimated.

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
UAI (ΔCDF)	2.60E-08	1.50E-08	1.70E-08	1.60E-08	1.80E-08	2.00E-08	1.70E-07	6.40E-08
URI (ΔCDF)	-7.60E-07	-7.50E-07	-7.50E-07	-7.50E-07	-7.50E-07	-5.30E-07	-5.30E-07	-1.40E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.34E-07**	**-7.35E-07**	**-7.33E-07**	**-7.34E-07**	**-7.32E-07**	**-5.10E-07**	**-3.60E-07**	**-1.34E-06**

Licensee Comments:

1Q/09: Changed PRA Parameter(s). Demand / Run Time reporting for Reliability changed from actuals to estimated!

2Q/06: Revised PRA parameters per PRA revision 6D. Changed demand and run time reporting from monthly actuals to estimated.

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**
Maximum activity	0.006430	0.007010	0.007260	0.007640	0.007650	0.007380	0.008000	0.009550	0.008750	0.008660	0.008680	0.010500
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.6**	**0.7**	**0.7**	**0.8**	**0.8**	**0.7**	**0.8**	**1.0**	**0.9**	**0.9**	**0.9**	**1.1**
Reactor Coolant System Activity	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**
Maximum activity	0.001770	0.001850	0.001920	0.001970	0.002050	0.002140	0.002240	0.002400	0.002470	0.002840	0.002670	0.002690
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.3**	**0.3**	**0.3**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/07**	**5/07**	**6/07**	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**
Maximum leakage	0.126	0.118	0.113	0.121	0.115	0.112	0.132	0.160	0.134	0.132	0.130	0.141
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**	**1.3**	**1.6**	**1.3**	**1.3**	**1.3**	**1.4**
Reactor Coolant System Leakage	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**
Maximum leakage	0.140	0.118	0.125	0.108	0.172	0.123	0.112	0.113	0.107	0.114	0.122	0.113
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.4**	**1.2**	**1.3**	**1.1**	**1.7**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**	**1.2**	**1.1**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Successful opportunities	45.0	43.0	88.0	4.0	27.0	62.0	53.0	30.0
Total opportunities	49.0	44.0	90.0	4.0	28.0	64.0	55.0	30.0
Indicator value	**97.8%**	**97.6%**	**97.5%**	**97.4%**	**97.3%**	**97.0%**	**96.5%**	**96.7%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Participating Key personnel	66.0	75.0	75.0	73.0	81.0	83.0	82.0	78.0
Total Key personnel	66.0	75.0	75.0	73.0	81.0	83.0	82.0	78.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
Successful siren-tests	5985	5988	5997	5996	6003	6006	5995	5915
Total sirens-tests	6005	6009	6007	6011	6016	6108	6016	5922
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.7%**	**99.8%**	**99.4%**	**99.4%**	**99.4%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
High radiation area occurrences	0	0	0	1	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/07	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: May 1, 2009

Byron 1

2Q/2009 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2208.0	1944.2	1990.0	1868.7	2208.0	2209.0	2159.0	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Unplanned power changes	0	1.0	0	0	0	0	0	0
Critical hours	2208.0	1944.2	1990.0	1868.7	2208.0	2209.0	2159.0	2184.0
Indicator value	**0**	**0.8**	**0.8**	**0.9**	**0.9**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**3Q/07**	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**
UAI (ΔCDF)	7.80E-08	7.50E-08	8.30E-09	-4.50E-08	-2.90E-08	-1.90E-08	5.10E-08	8.70E-08
URI (ΔCDF)	-2.60E-06	-2.60E-06	-2.60E-06	-2.60E-06	-1.40E-06	-1.40E-06	-1.30E-06	-1.30E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.52E-06**	**-2.53E-06**	**-2.59E-06**	**-2.65E-06**	**-1.43E-06**	**-1.42E-06**	**-1.25E-06**	**-1.21E-06**

Licensee Comments:

2Q/09: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
UAI (ΔCDF)	5.80E-08	5.90E-08	4.40E-08	2.00E-08	4.20E-08	5.80E-08	2.20E-08	1.20E-09
URI (ΔCDF)	-1.40E-08	-1.40E-08	-1.40E-08	-1.40E-08	-2.20E-08	-2.20E-08	-1.10E-08	-1.10E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**4.40E-08**	**4.50E-08**	**3.00E-08**	**6.00E-09**	**2.00E-08**	**3.60E-08**	**1.10E-08**	**-9.80E-09**

Licensee Comments:

2Q/09: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
UAI (ΔCDF)	8.80E-08	8.50E-08	3.20E-07	3.60E-07	1.30E-07	1.20E-07	2.10E-07	2.30E-07
URI (ΔCDF)	-1.10E-06	-1.10E-06	5.00E-07	3.10E-07	1.70E-07	1.70E-07	1.40E-07	1.10E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.01E-06**	**-1.02E-06**	**8.20E-07**	**6.70E-07**	**3.00E-07**	**2.90E-07**	**3.50E-07**	**3.40E-07**

Licensee Comments:

2Q/09: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
UAI (ΔCDF)	-2.60E-08	4.70E-08	1.60E-07	2.00E-07	2.50E-07	2.50E-07	2.50E-07	2.90E-07
URI (ΔCDF)	-1.30E-07	-1.40E-07	-1.20E-07	-1.40E-07	-1.50E-07	-1.40E-07	-1.50E-07	-1.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.56E-07**	**-9.30E-08**	**4.00E-08**	**6.00E-08**	**1.00E-07**	**1.10E-07**	**1.00E-07**	**1.40E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
UAI (ΔCDF)	1.50E-08	1.70E-08	1.60E-08	1.80E-08	2.00E-08	1.70E-07	6.40E-08	9.00E-08
URI (ΔCDF)	-7.50E-07	-7.50E-07	-7.50E-07	-7.50E-07	-5.30E-07	-5.30E-07	-1.40E-06	-1.40E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.35E-07**	**-7.33E-07**	**-7.34E-07**	**-7.32E-07**	**-5.10E-07**	**-3.60E-07**	**-1.34E-06**	**-1.31E-06**

Licensee Comments:

2Q/09: Changed PRA Parameter(s).

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**
Maximum activity	0.007640	0.007650	0.007380	0.008000	0.009550	0.008750	0.008660	0.008680	0.010500	0.001770	0.001850	0.001920
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.8**	**0.8**	**0.7**	**0.8**	**1.0**	**0.9**	**0.9**	**0.9**	**1.1**	**0.2**	**0.2**	**0.2**
Reactor Coolant System Activity	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**
Maximum activity	0.001970	0.002050	0.002140	0.002240	0.002400	0.002470	0.002840	0.002670	0.002690	0.002830	0.002890	0.002950
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/07**	**8/07**	**9/07**	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**
Maximum leakage	0.121	0.115	0.112	0.132	0.160	0.134	0.132	0.130	0.141	0.140	0.118	0.125
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.2**	**1.1**	**1.3**	**1.6**	**1.3**	**1.3**	**1.3**	**1.4**	**1.4**	**1.2**	**1.3**
Reactor Coolant System Leakage	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**
Maximum leakage	0.108	0.172	0.123	0.112	0.113	0.107	0.114	0.122	0.113	0.109	0.108	0.108
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.7**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Successful opportunities	43.0	88.0	4.0	27.0	62.0	53.0	30.0	62.0
Total opportunities	44.0	90.0	4.0	28.0	64.0	55.0	30.0	62.0
Indicator value	**97.6%**	**97.5%**	**97.4%**	**97.3%**	**97.0%**	**96.5%**	**96.7%**	**97.9%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Participating Key personnel	75.0	75.0	74.0	80.0	83.0	82.0	78.0	77.0
Total Key personnel	75.0	75.0	74.0	81.0	83.0	82.0	78.0	77.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**98.8%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
Successful siren-tests	5988	5997	5996	6003	6006	5995	5915	6006
Total sirens-tests	6009	6007	6011	6016	6108	6016	5922	6016
Indicator value	**99.8%**	**99.8%**	**99.7%**	**99.8%**	**99.4%**	**99.4%**	**99.4%**	**99.4%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
High radiation area occurrences	0	0	1	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**1**	**1**	**1**	**1**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/07	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: July 22, 2009

Byron 1

3Q/2009 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1944.2	1990.0	1868.7	2208.0	2209.0	2159.0	2184.0	1799.3
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Unplanned power changes	1.0	0	0	0	0	0	0	0
Critical hours	1944.2	1990.0	1868.7	2208.0	2209.0	2159.0	2184.0	1799.3
Indicator value	**0.8**	**0.8**	**0.9**	**0.9**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**
UAI (ΔCDF)	7.50E-08	8.30E-09	-4.50E-08	-2.90E-08	-1.90E-08	5.10E-08	8.70E-08	8.40E-08
URI (ΔCDF)	-2.60E-06	-2.60E-06	-2.60E-06	-1.40E-06	-1.40E-06	-1.30E-06	-1.30E-06	-1.40E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.53E-06**	**-2.59E-06**	**-2.65E-06**	**-1.43E-06**	**-1.42E-06**	**-1.25E-06**	**-1.21E-06**	**-1.32E-06**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**
UAI (ΔCDF)	5.90E-08	4.40E-08	2.00E-08	4.20E-08	5.80E-08	2.20E-08	1.20E-09	8.90E-09
URI (ΔCDF)	-1.40E-08	-1.40E-08	-1.40E-08	-2.20E-08	-2.20E-08	-1.10E-08	-1.10E-08	-1.10E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**4.50E-08**	**3.00E-08**	**6.00E-09**	**2.00E-08**	**3.60E-08**	**1.10E-08**	**-9.80E-09**	**-2.10E-09**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
UAI (ΔCDF)	8.50E-08	3.20E-07	3.60E-07	1.30E-07	1.20E-07	2.10E-07	2.30E-07	4.10E-07
URI (ΔCDF)	-1.10E-06	5.00E-07	3.10E-07	1.70E-07	1.70E-07	1.40E-07	1.10E-07	1.20E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.02E-06**	**8.20E-07**	**6.70E-07**	**3.00E-07**	**2.90E-07**	**3.50E-07**	**3.40E-07**	**5.30E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**
UAI (ΔCDF)	4.70E-08	1.60E-07	2.00E-07	2.50E-07	2.50E-07	2.50E-07	2.90E-07	1.70E-07
URI (ΔCDF)	-1.40E-07	-1.20E-07	-1.40E-07	-1.50E-07	-1.40E-07	-1.50E-07	-1.50E-07	-1.30E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-9.30E-08**	**4.00E-08**	**6.00E-08**	**1.00E-07**	**1.10E-07**	**1.00E-07**	**1.40E-07**	**4.00E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**4Q/07**	**1Q/08**	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**
UAI (ΔCDF)	1.70E-08	1.60E-08	1.80E-08	2.00E-08	1.70E-07	6.40E-08	9.00E-08	1.60E-07
URI (ΔCDF)	-7.50E-07	-7.50E-07	-7.50E-07	-5.30E-07	-5.30E-07	-1.40E-06	-1.40E-06	-1.40E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.33E-07**	**-7.34E-07**	**-7.32E-07**	**-5.10E-07**	**-3.60E-07**	**-1.34E-06**	**-1.31E-06**	**-1.24E-06**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**
Maximum activity	0.008000	0.009550	0.008750	0.008660	0.008680	0.010500	0.001770	0.001850	0.001920	0.001970	0.002050	0.002140
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.8**	**1.0**	**0.9**	**0.9**	**0.9**	**1.1**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
Reactor Coolant System Activity	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**
Maximum activity	0.002240	0.002400	0.002470	0.002840	0.002670	0.002690	0.002830	0.002890	0.002950	0.003040	0.003260	0.003360
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.2**	**0.2**	**0.2**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**10/07**	**11/07**	**12/07**	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**
Maximum leakage	0.132	0.160	0.134	0.132	0.130	0.141	0.140	0.118	0.125	0.108	0.112	0.123
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.6**	**1.3**	**1.3**	**1.3**	**1.4**	**1.4**	**1.2**	**1.3**	**1.1**	**1.1**	**1.2**
Reactor Coolant System Leakage	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**
Maximum leakage	0.112	0.113	0.107	0.114	0.122	0.113	0.109	0.108	0.108	0.103	0.100	0.100
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.1**	**1.1**	**1.1**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**	**1.0**	**1.0**	**1.0**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Successful opportunities	88.0	4.0	27.0	62.0	53.0	30.0	62.0	40.0
Total opportunities	90.0	4.0	28.0	64.0	55.0	30.0	62.0	42.0
Indicator value	**97.5%**	**97.4%**	**97.3%**	**97.0%**	**96.5%**	**96.7%**	**97.9%**	**97.6%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Participating Key personnel	75.0	74.0	80.0	83.0	82.0	78.0	77.0	76.0
Total Key personnel	75.0	74.0	81.0	83.0	82.0	78.0	77.0	76.0
Indicator value	**100.0%**	**100.0%**	**98.8%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
Successful siren-tests	5997	5996	6003	6006	5995	5915	6006	6106
Total sirens-tests	6007	6011	6016	6108	6016	5922	6016	6110
Indicator value	**99.8%**	**99.7%**	**99.8%**	**99.4%**	**99.4%**	**99.4%**	**99.4%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
High radiation area occurrences	0	1	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**1**	**1**	**1**	**1**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/07	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: November 30, 2009

Byron 1

4Q/2009 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1990.0	1868.7	2208.0	2209.0	2159.0	2184.0	1799.3	2038.6
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	1990.0	1868.7	2208.0	2209.0	2159.0	2184.0	1799.3	2038.6
Indicator value	**0.8**	**0.9**	**0.9**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**1Q/08**	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**
UAI (ΔCDF)	8.30E-09	-4.50E-08	-2.90E-08	-1.90E-08	5.10E-08	8.70E-08	6.20E-08	3.70E-08
URI (ΔCDF)	-2.60E-06	-2.60E-06	-1.40E-06	-1.40E-06	-1.30E-06	-1.30E-06	-5.70E-07	-5.60E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.59E-06**	**-2.65E-06**	**-1.43E-06**	**-1.42E-06**	**-1.25E-06**	**-1.21E-06**	**-5.08E-07**	**-5.23E-07**

Licensee Comments:

4Q/09: Changed PRA Parameter(s).

3Q/09: Changed PRA Parameter(s). Incorporated Basis Doc Revision 4 changes resulting from PRA Model revsion 6e which incorporated a change to DG mission time and addition of A Train AF cross-tie.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI (ΔCDF)	4.40E-08	2.00E-08	4.20E-08	5.80E-08	2.20E-08	1.20E-09	5.70E-10	8.70E-09
URI (ΔCDF)	-1.40E-08	-1.40E-08	-2.20E-08	-2.20E-08	-1.10E-08	-1.10E-08	-2.40E-09	-2.40E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.00E-08**	**6.00E-09**	**2.00E-08**	**3.60E-08**	**1.10E-08**	**-9.80E-09**	**-1.83E-09**	**6.30E-09**

Licensee Comments:

4Q/09: Changed PRA Parameter(s).

3Q/09: Changed PRA Parameter(s). Incorporated Basis Doc Revision 4 changes resulting from PRA Model revsion 6e which incorporated a change to DG mission time and addition of A Train AF cross-tie.

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI (ΔCDF)	3.20E-07	3.60E-07	1.30E-07	1.20E-07	2.10E-07	2.30E-07	2.00E-07	1.30E-07
URI (ΔCDF)	5.00E-07	3.10E-07	1.70E-07	1.70E-07	1.40E-07	1.10E-07	4.70E-08	6.40E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**8.20E-07**	**6.70E-07**	**3.00E-07**	**2.90E-07**	**3.50E-07**	**3.40E-07**	**2.47E-07**	**1.36E-07**

Licensee Comments:

4Q/09: Changed PRA Parameter(s).

3Q/09: Changed PRA Parameter(s). Incorporated Basis Doc Revision 4 changes resulting from PRA Model revsion 6e which incorporated a change to DG mission time and addition of A Train AF cross-tie.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
UAI (ΔCDF)	1.60E-07	2.00E-07	2.50E-07	2.50E-07	2.50E-07	2.90E-07	7.50E-08	7.30E-08
URI (ΔCDF)	-1.20E-07	-1.40E-07	-1.50E-07	-1.40E-07	-1.50E-07	-1.50E-07	-8.50E-08	-8.20E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**4.00E-08**	**6.00E-08**	**1.00E-07**	**1.10E-07**	**1.00E-07**	**1.40E-07**	**-1.00E-08**	**-9.00E-09**

Licensee Comments:

4Q/09: Changed PRA Parameter(s).

3Q/09: Changed PRA Parameter(s). Incorporated Basis Doc Revision 4 changes resulting from PRA Model revsion 6e which incorporated a change to DG mission time and addition of A Train AF cross-tie.

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**1Q/08**	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**
UAI (ΔCDF)	1.60E-08	1.80E-08	2.00E-08	1.70E-07	6.40E-08	9.00E-08	1.50E-07	1.30E-07
URI (ΔCDF)	-7.50E-07	-7.50E-07	-5.30E-07	-5.30E-07	-1.40E-06	-1.40E-06	-8.90E-07	-8.90E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.34E-07**	**-7.32E-07**	**-5.10E-07**	**-3.60E-07**	**-1.34E-06**	**-1.31E-06**	**-7.40E-07**	**-7.60E-07**

Licensee Comments:

4Q/09: Changed PRA Parameter(s).

3Q/09: Changed PRA Parameter(s). Incorporated Basis Doc Revision 4 changes resulting from PRA Model revsion 6e which incorporated a change to DG mission time and addition of A Train AF cross-tie.

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**
Maximum activity	0.008660	0.008680	0.010500	0.001770	0.001850	0.001920	0.001970	0.002050	0.002140	0.002240	0.002400	0.002470
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.9**	**0.9**	**1.1**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
Reactor Coolant System Activity	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**
Maximum activity	0.002840	0.002670	0.002690	0.002830	0.002890	0.002950	0.003040	0.003260	0.003360	0.001250	0.001090	0.000961
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.1**	**0.1**	**0.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/08**	**2/08**	**3/08**	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**
Maximum leakage	0.132	0.130	0.141	0.140	0.118	0.125	0.108	0.112	0.123	0.112	0.113	0.107
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.3**	**1.4**	**1.4**	**1.2**	**1.3**	**1.1**	**1.1**	**1.2**	**1.1**	**1.1**	**1.1**
Reactor Coolant System Leakage	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**
Maximum leakage	0.114	0.122	0.113	0.109	0.108	0.108	0.103	0.100	0.100	0.120	0.120	0.120
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**	**1.0**	**1.0**	**1.0**	**1.2**	**1.2**	**1.2**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Successful opportunities	4.0	27.0	62.0	51.0	30.0	62.0	40.0	64.0
Total opportunities	4.0	28.0	64.0	53.0	30.0	62.0	42.0	65.0
Indicator value	**97.4%**	**97.3%**	**97.0%**	**96.5%**	**96.7%**	**97.9%**	**97.6%**	**97.7%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Participating Key personnel	74.0	80.0	83.0	82.0	78.0	77.0	76.0	72.0
Total Key personnel	74.0	81.0	83.0	82.0	78.0	77.0	76.0	72.0
Indicator value	**100.0%**	**98.8%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
Successful siren-tests	5996	6003	6006	5995	5915	6006	6106	5998
Total sirens-tests	6011	6016	6108	6016	5922	6016	6110	6016
Indicator value	**99.7%**	**99.8%**	**99.4%**	**99.4%**	**99.4%**	**99.4%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
High radiation area occurrences	1	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/08	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: January 22, 2010

Byron 1

1Q/2010 Performance Indicators

Licensee's General Comments: The NRC identified where an SSFF was reported but did not actually occur for: Unit 1 - Jun, Sept and Nov 2003 and for Unit 2 - Jun and Sept 2003. In June of 2006, the SSFF data field was incorrectly changed from "0" to "1". The data is now corrected.

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1868.7	2208.0	2209.0	2159.0	2184.0	1799.3	2038.6	2159.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	1868.7	2208.0	2209.0	2159.0	2184.0	1799.3	2038.6	2159.0
Indicator value	**0.9**	**0.9**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**
UAI (ΔCDF)	-4.50E-08	-2.90E-08	-1.90E-08	5.10E-08	8.70E-08	6.20E-08	3.70E-08	3.41E-08
URI (ΔCDF)	-2.60E-06	-1.40E-06	-1.40E-06	-1.30E-06	-1.30E-06	-5.70E-07	-5.60E-07	-5.66E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.65E-06**	**-1.43E-06**	**-1.42E-06**	**-1.25E-06**	**-1.21E-06**	**-5.08E-07**	**-5.23E-07**	**-5.30E-07**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**
UAI (ΔCDF)	2.00E-08	4.20E-08	5.80E-08	2.20E-08	1.20E-09	5.70E-10	8.70E-09	1.54E-08
URI (ΔCDF)	-1.40E-08	-2.20E-08	-2.20E-08	-1.10E-08	-1.10E-08	-2.40E-09	-2.40E-09	-2.40E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**6.00E-09**	**2.00E-08**	**3.60E-08**	**1.10E-08**	**-9.80E-09**	**-1.83E-09**	**6.30E-09**	**1.30E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
UAI (ΔCDF)	3.60E-07	1.30E-07	1.20E-07	2.10E-07	2.30E-07	2.00E-07	1.30E-07	1.09E-07
URI (ΔCDF)	3.10E-07	1.70E-07	1.70E-07	1.40E-07	1.10E-07	4.70E-08	6.40E-09	1.32E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**6.70E-07**	**3.00E-07**	**2.90E-07**	**3.50E-07**	**3.40E-07**	**2.47E-07**	**1.36E-07**	**1.20E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**
UAI (ΔCDF)	2.00E-07	2.50E-07	2.50E-07	2.50E-07	2.90E-07	7.50E-08	7.30E-08	7.27E-08
URI (ΔCDF)	-1.40E-07	-1.50E-07	-1.40E-07	-1.50E-07	-1.50E-07	-8.50E-08	-8.20E-08	-8.66E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**6.00E-08**	**1.00E-07**	**1.10E-07**	**1.00E-07**	**1.40E-07**	**-1.00E-08**	**-9.00E-09**	**-1.40E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**2Q/08**	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**
UAI (ΔCDF)	1.80E-08	2.00E-08	1.70E-07	6.40E-08	9.00E-08	1.50E-07	1.30E-07	6.13E-08
URI (ΔCDF)	-7.50E-07	-5.30E-07	-5.30E-07	-1.40E-06	-1.40E-06	-8.90E-07	-8.90E-07	-8.96E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.32E-07**	**-5.10E-07**	**-3.60E-07**	**-1.34E-06**	**-1.31E-06**	**-7.40E-07**	**-7.60E-07**	**-8.30E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**
Maximum activity	0.001770	0.001850	0.001920	0.001970	0.002050	0.002140	0.002240	0.002400	0.002470	0.002840	0.002670	0.002690
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.3**	**0.3**	**0.3**
Reactor Coolant System Activity	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**
Maximum activity	0.002830	0.002890	0.002950	0.003040	0.003260	0.003360	0.001250	0.001090	0.000961	0.000978	0.001000	0.000614
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/08**	**5/08**	**6/08**	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**
Maximum leakage	0.140	0.118	0.125	0.108	0.112	0.123	0.112	0.113	0.107	0.114	0.122	0.113
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.4**	**1.2**	**1.3**	**1.1**	**1.1**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**	**1.2**	**1.1**
Reactor Coolant System Leakage	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**
Maximum leakage	0.109	0.108	0.108	0.103	0.100	0.100	0.120	0.120	0.120	0.120	0.110	0.120
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.1**	**1.1**	**1.0**	**1.0**	**1.0**	**1.2**	**1.2**	**1.2**	**1.2**	**1.1**	**1.2**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Successful opportunities	27.0	62.0	51.0	30.0	62.0	40.0	64.0	34.0
Total opportunities	28.0	64.0	53.0	30.0	62.0	42.0	65.0	34.0
Indicator value	**97.3%**	**97.0%**	**96.5%**	**96.7%**	**97.9%**	**97.6%**	**97.7%**	**97.9%**

Licensee Comments: none

Notes

ERO Drill Participation	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Participating Key personnel	80.0	83.0	82.0	78.0	77.0	76.0	72.0	74.0
Total Key personnel	81.0	83.0	82.0	78.0	77.0	76.0	72.0	74.0
Indicator value	**98.8%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
Successful siren-tests	6003	6006	5995	5915	6006	6106	5998	3841
Total sirens-tests	6016	6108	6016	5922	6016	6110	6016	3843
Indicator value	**99.8%**	**99.4%**	**99.4%**	**99.4%**	**99.4%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments:

1Q/10: The number of siren tests has been reduced compared to data in previous months due to a reduction of total sirens in the system. This upgrade was implemented in January 2010.

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/08	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: April 26, 2010

Byron 1

2Q/2010 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	2159.0	2184.0	1799.3	2038.6	2159.0	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	2159.0	2184.0	1799.3	2038.6	2159.0	2184.0
Indicator value	**0.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**
UAI (ΔCDF)	-2.90E-08	-1.90E-08	5.10E-08	8.70E-08	6.20E-08	3.70E-08	3.41E-08	3.05E-08
URI (ΔCDF)	-1.40E-06	-1.40E-06	-1.30E-06	-1.30E-06	-5.70E-07	-5.60E-07	-5.66E-07	-4.05E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.43E-06**	**-1.42E-06**	**-1.25E-06**	**-1.21E-06**	**-5.08E-07**	**-5.23E-07**	**-5.30E-07**	**-3.70E-07**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**
UAI (ΔCDF)	4.20E-08	5.80E-08	2.20E-08	1.20E-09	5.70E-10	8.70E-09	1.54E-08	7.49E-09
URI (ΔCDF)	-2.20E-08	-2.20E-08	-1.10E-08	-1.10E-08	-2.40E-09	-2.40E-09	-2.40E-09	-2.41E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.00E-08**	**3.60E-08**	**1.10E-08**	**-9.80E-09**	**-1.83E-09**	**6.30E-09**	**1.30E-08**	**5.10E-09**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
UAI (ΔCDF)	1.30E-07	1.20E-07	2.10E-07	2.30E-07	2.00E-07	1.30E-07	1.09E-07	6.84E-08
URI (ΔCDF)	1.70E-07	1.70E-07	1.40E-07	1.10E-07	4.70E-08	6.40E-09	1.32E-08	1.67E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.00E-07**	**2.90E-07**	**3.50E-07**	**3.40E-07**	**2.47E-07**	**1.36E-07**	**1.20E-07**	**8.50E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**
UAI (ΔCDF)	2.50E-07	2.50E-07	2.50E-07	2.90E-07	7.50E-08	7.30E-08	7.27E-08	7.24E-08
URI (ΔCDF)	-1.50E-07	-1.40E-07	-1.50E-07	-1.50E-07	-8.50E-08	-8.20E-08	-8.66E-08	-9.04E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.00E-07**	**1.10E-07**	**1.00E-07**	**1.40E-07**	**-1.00E-08**	**-9.00E-09**	**-1.40E-08**	**-1.80E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**3Q/08**	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**
UAI (ΔCDF)	2.00E-08	1.70E-07	6.40E-08	9.00E-08	1.50E-07	1.30E-07	6.13E-08	2.46E-07
URI (ΔCDF)	-5.30E-07	-5.30E-07	-1.40E-06	-1.40E-06	-8.90E-07	-8.90E-07	-8.96E-07	-8.84E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.10E-07**	**-3.60E-07**	**-1.34E-06**	**-1.31E-06**	**-7.40E-07**	**-7.60E-07**	**-8.30E-07**	**-6.40E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**
Maximum activity	0.001970	0.002050	0.002140	0.002240	0.002400	0.002470	0.002840	0.002670	0.002690	0.002830	0.002890	0.002950
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**
Reactor Coolant System Activity	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**
Maximum activity	0.003040	0.003260	0.003360	0.001250	0.001090	0.000961	0.000978	0.001000	0.000614	0.000656	0.000920	0.000719
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.3**	**0.3**	**0.3**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/08**	**8/08**	**9/08**	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**
Maximum leakage	0.108	0.112	0.123	0.112	0.113	0.107	0.114	0.122	0.113	0.109	0.108	0.108
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.1**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**
Reactor Coolant System Leakage	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**
Maximum leakage	0.103	0.100	0.100	0.120	0.120	0.120	0.120	0.110	0.120	0.120	0.110	0.110
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.0**	**1.0**	**1.0**	**1.2**	**1.2**	**1.2**	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**	**1.1**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Successful opportunities	62.0	51.0	30.0	62.0	40.0	64.0	34.0	9.0
Total opportunities	64.0	53.0	30.0	62.0	42.0	65.0	34.0	10.0
Indicator value	**97.0%**	**96.5%**	**96.7%**	**97.9%**	**97.6%**	**97.7%**	**97.9%**	**97.8%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Participating Key personnel	83.0	82.0	78.0	77.0	74.0	72.0	74.0	74.0
Total Key personnel	83.0	82.0	78.0	77.0	74.0	72.0	74.0	74.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
Successful siren-tests	6006	5995	5915	6006	6106	5998	3841	3890
Total sirens-tests	6108	6016	5922	6016	6110	6016	3843	3904
Indicator value	**99.4%**	**99.4%**	**99.4%**	**99.4%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/08	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: July 26, 2010

Byron 1

3Q/2010 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2209.0	2159.0	2184.0	1799.3	2038.6	2159.0	2184.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
Unplanned power changes	0	0	0	0	0	0	0	1.0
Critical hours	2209.0	2159.0	2184.0	1799.3	2038.6	2159.0	2184.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.8**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments:

3Q/10: LER 454-2010-001-00 UG Cable Vaults not vital - No SSFF.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**
UAI (ΔCDF)	-1.90E-08	5.10E-08	8.70E-08	6.20E-08	3.70E-08	3.41E-08	3.05E-08	2.67E-08
URI (ΔCDF)	-1.40E-06	-1.30E-06	-1.30E-06	-5.70E-07	-5.60E-07	-5.66E-07	-4.05E-07	-4.04E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.42E-06**	**-1.25E-06**	**-1.21E-06**	**-5.08E-07**	**-5.23E-07**	**-5.30E-07**	**-3.70E-07**	**-3.80E-07**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**
UAI (ΔCDF)	5.80E-08	2.20E-08	1.20E-09	5.70E-10	8.70E-09	1.54E-08	7.49E-09	1.38E-08
URI (ΔCDF)	-2.20E-08	-1.10E-08	-1.10E-08	-2.40E-09	-2.40E-09	-2.40E-09	-2.41E-09	-2.42E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.60E-08**	**1.10E-08**	**-9.80E-09**	**-1.83E-09**	**6.30E-09**	**1.30E-08**	**5.10E-09**	**1.10E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
UAI (ΔCDF)	1.20E-07	2.10E-07	2.30E-07	2.00E-07	1.30E-07	1.09E-07	6.84E-08	5.84E-08
URI (ΔCDF)	1.70E-07	1.40E-07	1.10E-07	4.70E-08	6.40E-09	1.32E-08	1.67E-08	1.74E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.90E-07**	**3.50E-07**	**3.40E-07**	**2.47E-07**	**1.36E-07**	**1.20E-07**	**8.50E-08**	**7.60E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
UAI (ΔCDF)	2.50E-07	2.50E-07	2.90E-07	7.50E-08	7.30E-08	7.27E-08	7.24E-08	2.29E-07
URI (ΔCDF)	-1.40E-07	-1.50E-07	-1.50E-07	-8.50E-08	-8.20E-08	-8.66E-08	-9.04E-08	-9.41E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.10E-07**	**1.00E-07**	**1.40E-07**	**-1.00E-08**	**-9.00E-09**	**-1.40E-08**	**-1.80E-08**	**1.40E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**4Q/08**	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**
UAI (ΔCDF)	1.70E-07	6.40E-08	9.00E-08	1.50E-07	1.30E-07	6.13E-08	2.46E-07	2.45E-07
URI (ΔCDF)	-5.30E-07	-1.40E-06	-1.40E-06	-8.90E-07	-8.90E-07	-8.96E-07	-8.84E-07	-8.89E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.60E-07**	**-1.34E-06**	**-1.31E-06**	**-7.40E-07**	**-7.60E-07**	**-8.30E-07**	**-6.40E-07**	**-6.40E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**
Maximum activity	0.002240	0.002400	0.002470	0.002840	0.002670	0.002690	0.002830	0.002890	0.002950	0.003040	0.003260	0.003360
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.2**	**0.2**	**0.2**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**
Reactor Coolant System Activity	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**
Maximum activity	0.001250	0.001090	0.000961	0.000978	0.001000	0.000614	0.000656	0.000920	0.000719	0.000736	0.000785	0.000804
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**10/08**	**11/08**	**12/08**	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**
Maximum leakage	0.112	0.113	0.107	0.114	0.122	0.113	0.109	0.108	0.108	0.103	0.100	0.100
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.1**	**1.1**	**1.1**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**	**1.0**	**1.0**	**1.0**
Reactor Coolant System Leakage	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**
Maximum leakage	0.120	0.120	0.120	0.120	0.110	0.120	0.120	0.110	0.110	0.100	0.120	0.110
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.2**	**1.2**	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**	**1.1**	**1.0**	**1.2**	**1.1**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
Successful opportunities	51.0	30.0	62.0	40.0	64.0	34.0	9.0	58.0
Total opportunities	53.0	30.0	62.0	42.0	65.0	34.0	10.0	61.0
Indicator value	**96.5%**	**96.7%**	**97.9%**	**97.6%**	**97.7%**	**97.9%**	**97.8%**	**97.5%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
Participating Key personnel	82.0	78.0	77.0	74.0	72.0	74.0	74.0	72.0
Total Key personnel	82.0	78.0	77.0	74.0	72.0	74.0	74.0	72.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
Successful siren-tests	5995	5915	6006	6106	5998	3841	3890	3959
Total sirens-tests	6016	5922	6016	6110	6016	3843	3904	3965
Indicator value	**99.4%**	**99.4%**	**99.4%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/08	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: October 25, 2010

Byron 1

4Q/2010 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2159.0	2184.0	1799.3	2038.6	2159.0	2184.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Unplanned power changes	0	0	0	0	0	0	1.0	0
Critical hours	2159.0	2184.0	1799.3	2038.6	2159.0	2184.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0.8**	**0.8**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**
UAI (ΔCDF)	5.10E-08	8.70E-08	6.20E-08	3.70E-08	3.41E-08	3.05E-08	2.67E-08	7.32E-08
URI (ΔCDF)	-1.30E-06	-1.30E-06	-5.70E-07	-5.60E-07	-5.66E-07	-4.05E-07	-4.04E-07	-2.39E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.25E-06**	**-1.21E-06**	**-5.08E-07**	**-5.23E-07**	**-5.30E-07**	**-3.70E-07**	**-3.80E-07**	**-1.70E-07**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**
UAI (ΔCDF)	2.20E-08	1.20E-09	5.70E-10	8.70E-09	1.54E-08	7.49E-09	1.38E-08	1.33E-08
URI (ΔCDF)	-1.10E-08	-1.10E-08	-2.40E-09	-2.40E-09	-2.40E-09	-2.41E-09	-2.42E-09	-2.42E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.10E-08**	**-9.80E-09**	**-1.83E-09**	**6.30E-09**	**1.30E-08**	**5.10E-09**	**1.10E-08**	**1.10E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
UAI (ΔCDF)	2.10E-07	2.30E-07	2.00E-07	1.30E-07	1.09E-07	6.84E-08	5.84E-08	5.00E-08
URI (ΔCDF)	1.40E-07	1.10E-07	4.70E-08	6.40E-09	1.32E-08	1.67E-08	1.74E-08	2.40E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.50E-07**	**3.40E-07**	**2.47E-07**	**1.36E-07**	**1.20E-07**	**8.50E-08**	**7.60E-08**	**7.40E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
UAI (ΔCDF)	2.50E-07	2.90E-07	7.50E-08	7.30E-08	7.27E-08	7.24E-08	2.29E-07	1.52E-07
URI (ΔCDF)	-1.50E-07	-1.50E-07	-8.50E-08	-8.20E-08	-8.66E-08	-9.04E-08	-9.41E-08	-9.22E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.00E-07**	**1.40E-07**	**-1.00E-08**	**-9.00E-09**	**-1.40E-08**	**-1.80E-08**	**1.40E-07**	**6.00E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**
UAI (ΔCDF)	6.40E-08	9.00E-08	1.50E-07	1.30E-07	6.13E-08	2.46E-07	2.45E-07	2.39E-07
URI (ΔCDF)	-1.40E-06	-1.40E-06	-8.90E-07	-8.90E-07	-8.96E-07	-8.84E-07	-8.89E-07	-8.89E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.34E-06**	**-1.31E-06**	**-7.40E-07**	**-7.60E-07**	**-8.30E-07**	**-6.40E-07**	**-6.40E-07**	**-6.50E-07**

Licensee Comments:

4Q/10: Changed PRA Parameter(s).

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**
Maximum activity	0.002840	0.002670	0.002690	0.002830	0.002890	0.002950	0.003040	0.003260	0.003360	0.001250	0.001090	0.000961
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.1**	**0.1**	**0.1**
Reactor Coolant System Activity	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**
Maximum activity	0.000978	0.001000	0.000614	0.000656	0.000920	0.000719	0.000736	0.000785	0.000804	0.000838	0.000873	0.000926
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/09**	**2/09**	**3/09**	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**
Maximum leakage	0.114	0.122	0.113	0.109	0.108	0.108	0.103	0.100	0.100	0.120	0.120	0.120
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**	**1.0**	**1.0**	**1.0**	**1.2**	**1.2**	**1.2**
Reactor Coolant System Leakage	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**
Maximum leakage	0.120	0.110	0.120	0.120	0.110	0.110	0.100	0.120	0.110	0.500	0.120	0.110
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**	**1.1**	**1.0**	**1.2**	**1.1**	**5.0**	**1.2**	**1.1**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Successful opportunities	30.0	62.0	40.0	64.0	34.0	9.0	58.0	12.0
Total opportunities	30.0	62.0	42.0	65.0	34.0	10.0	61.0	13.0
Indicator value	**96.7%**	**97.9%**	**97.6%**	**97.7%**	**97.9%**	**97.8%**	**97.5%**	**97.5%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	**1Q/09**	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**
Participating Key personnel	78.0	77.0	74.0	72.0	74.0	74.0	72.0	74.0
Total Key personnel	78.0	77.0	74.0	72.0	74.0	74.0	72.0	74.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
Successful siren-tests	5915	6006	6106	5998	3841	3890	3959	3956
Total sirens-tests	5922	6016	6110	6016	3843	3904	3965	3965
Indicator value	**99.4%**	**99.4%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/09	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: January 24, 2011

Byron 1

1Q/2011 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.0	1799.3	2038.6	2159.0	2184.0	2208.0	2209.0	1726.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Unplanned power changes	0	0	0	0	0	1.0	0	0
Critical hours	2184.0	1799.3	2038.6	2159.0	2184.0	2208.0	2209.0	1726.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0.8**	**0.8**	**0.8**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Safety System Functional Failures	0	0	0	0	0	0	0	2
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**

Licensee Comments:

1Q/11: January- LER 454-2010-001-00: Tech Spec AOT Extension Request for CC Contained Inaccurate Information. An SSFF could have occurred with the postulation of design basis assumptions. Mardh-LER 2011-001: Potential Loss of Residual Heat Removal System Safety Function in Mode 4 When Aligned for Shutdown Cooling Due to Potential for Flashing or Voiding of Coolant During a Shutdown Loss of Coolant Accident

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**
UAI (ΔCDF)	8.70E-08	6.20E-08	3.70E-08	3.41E-08	3.05E-08	2.67E-08	7.32E-08	1.01E-07
URI (ΔCDF)	-1.30E-06	-5.70E-07	-5.60E-07	-5.66E-07	-4.05E-07	-4.04E-07	-2.39E-07	-2.43E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.21E-06**	**-5.08E-07**	**-5.23E-07**	**-5.30E-07**	**-3.70E-07**	**-3.80E-07**	**-1.70E-07**	**-1.40E-07**

Licensee Comments:

1Q/11: Due to typo on paperwork, UA for 1A DG was listed for 1B. This has been corrected.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI (ΔCDF)	1.20E-09	5.70E-10	8.70E-09	1.54E-08	7.49E-09	1.38E-08	1.33E-08	2.99E-08
URI (ΔCDF)	-1.10E-08	-2.40E-09	-2.40E-09	-2.40E-09	-2.41E-09	-2.42E-09	-2.42E-09	-2.44E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-9.80E-09**	**-1.83E-09**	**6.30E-09**	**1.30E-08**	**5.10E-09**	**1.10E-08**	**1.10E-08**	**2.70E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI (ΔCDF)	2.30E-07	2.00E-07	1.30E-07	1.09E-07	6.84E-08	5.84E-08	5.00E-08	-1.55E-08
URI (ΔCDF)	1.10E-07	4.70E-08	6.40E-09	1.32E-08	1.67E-08	1.74E-08	2.40E-08	-2.53E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.40E-07**	**2.47E-07**	**1.36E-07**	**1.20E-07**	**8.50E-08**	**7.60E-08**	**7.40E-08**	**-2.70E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
UAI (ΔCDF)	2.90E-07	7.50E-08	7.30E-08	7.27E-08	7.24E-08	2.29E-07	1.52E-07	9.00E-08
URI (ΔCDF)	-1.50E-07	-8.50E-08	-8.20E-08	-8.66E-08	-9.04E-08	-9.41E-08	-9.22E-08	-9.04E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.40E-07**	**-1.00E-08**	**-9.00E-09**	**-1.40E-08**	**-1.80E-08**	**1.40E-07**	**6.00E-08**	**-4.00E-10**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**2Q/09**	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**
UAI (ΔCDF)	9.00E-08	1.50E-07	1.30E-07	6.13E-08	2.46E-07	2.45E-07	2.39E-07	1.65E-07
URI (ΔCDF)	-1.40E-06	-8.90E-07	-8.90E-07	-8.96E-07	-8.84E-07	-8.89E-07	-8.89E-07	-8.85E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.31E-06**	**-7.40E-07**	**-7.60E-07**	**-8.30E-07**	**-6.40E-07**	**-6.40E-07**	**-6.50E-07**	**-7.20E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**
Maximum activity	0.002830	0.002890	0.002950	0.003040	0.003260	0.003360	0.001250	0.001090	0.000961	0.000978	0.001000	0.000614
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Reactor Coolant System Activity	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**
Maximum activity	0.000656	0.000920	0.000719	0.000736	0.000785	0.000804	0.000838	0.000873	0.000926	0.000961	0.000963	0.001380
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/09**	**5/09**	**6/09**	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**
Maximum leakage	0.109	0.108	0.108	0.103	0.100	0.100	0.120	0.120	0.120	0.120	0.110	0.120
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.1**	**1.1**	**1.0**	**1.0**	**1.0**	**1.2**	**1.2**	**1.2**	**1.2**	**1.1**	**1.2**
Reactor Coolant System Leakage	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**
Maximum leakage	0.120	0.110	0.110	0.100	0.120	0.110	0.500	0.120	0.110	0.110	0.110	0.130
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.1**	**1.1**	**1.0**	**1.2**	**1.1**	**5.0**	**1.2**	**1.1**	**1.1**	**1.1**	**1.3**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Successful opportunities	62.0	40.0	64.0	34.0	9.0	58.0	12.0	51.0
Total opportunities	62.0	42.0	65.0	34.0	10.0	61.0	13.0	51.0
Indicator value	**97.9%**	**97.6%**	**97.7%**	**97.9%**	**97.8%**	**97.5%**	**97.5%**	**97.6%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Participating Key personnel	77.0	74.0	72.0	74.0	74.0	72.0	74.0	76.0
Total Key personnel	77.0	74.0	72.0	74.0	74.0	72.0	74.0	76.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
Successful siren-tests	6006	6106	5998	3841	3890	3959	3956	3902
Total sirens-tests	6016	6110	6016	3843	3904	3965	3965	3904
Indicator value	**99.4%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/09	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: May 4, 2011

Byron 1

2Q/2011 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1799.3	2038.6	2159.0	2184.0	2208.0	2209.0	1726.0	1642.7
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
Unplanned power changes	0	0	0	0	1.0	0	0	0
Critical hours	1799.3	2038.6	2159.0	2184.0	2208.0	2209.0	1726.0	1642.7
Indicator value	**0**	**0**	**0**	**0**	**0.8**	**0.8**	**0.8**	**0.9**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
Safety System Functional Failures	0	0	0	0	0	0	2	1
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**
UAI (ΔCDF)	6.20E-08	3.70E-08	3.41E-08	3.05E-08	2.67E-08	7.32E-08	1.01E-07	1.03E-07
URI (ΔCDF)	-5.70E-07	-5.60E-07	-5.66E-07	-4.05E-07	-4.04E-07	-2.39E-07	-2.43E-07	-2.28E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.08E-07**	**-5.23E-07**	**-5.30E-07**	**-3.70E-07**	**-3.80E-07**	**-1.70E-07**	**-1.40E-07**	**-1.30E-07**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
UAI (ΔCDF)	5.70E-10	8.70E-09	1.54E-08	7.49E-09	1.38E-08	1.33E-08	2.99E-08	2.56E-08
URI (ΔCDF)	-2.40E-09	-2.40E-09	-2.40E-09	-2.41E-09	-2.42E-09	-2.42E-09	-2.44E-09	-2.38E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.83E-09**	**6.30E-09**	**1.30E-08**	**5.10E-09**	**1.10E-08**	**1.10E-08**	**2.70E-08**	**2.30E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
UAI (ΔCDF)	2.00E-07	1.30E-07	1.09E-07	6.84E-08	5.84E-08	5.00E-08	-1.55E-08	-1.61E-08
URI (ΔCDF)	4.70E-08	6.40E-09	1.32E-08	1.67E-08	1.74E-08	2.40E-08	-2.53E-07	-2.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.47E-07**	**1.36E-07**	**1.20E-07**	**8.50E-08**	**7.60E-08**	**7.40E-08**	**-2.70E-07**	**-2.70E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**
UAI (ΔCDF)	7.50E-08	7.30E-08	7.27E-08	7.24E-08	2.29E-07	1.52E-07	9.00E-08	1.04E-07
URI (ΔCDF)	-8.50E-08	-8.20E-08	-8.66E-08	-9.04E-08	-9.41E-08	-9.22E-08	-9.04E-08	-8.39E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.00E-08**	**-9.00E-09**	**-1.40E-08**	**-1.80E-08**	**1.40E-07**	**6.00E-08**	**-4.00E-10**	**2.00E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**3Q/09**	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**
UAI (ΔCDF)	1.50E-07	1.30E-07	6.13E-08	2.46E-07	2.45E-07	2.39E-07	1.65E-07	2.65E-07
URI (ΔCDF)	-8.90E-07	-8.90E-07	-8.96E-07	-8.84E-07	-8.89E-07	-8.89E-07	-8.85E-07	-8.86E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.40E-07**	**-7.60E-07**	**-8.30E-07**	**-6.40E-07**	**-6.40E-07**	**-6.50E-07**	**-7.20E-07**	**-6.20E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**
Maximum activity	0.003040	0.003260	0.003360	0.001250	0.001090	0.000961	0.000978	0.001000	0.000614	0.000656	0.000920	0.000719
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.3**	**0.3**	**0.3**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Reactor Coolant System Activity	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**	**4/11**	**5/11**	**6/11**
Maximum activity	0.000736	0.000785	0.000804	0.000838	0.000873	0.000926	0.000961	0.000963	0.001380	N/A	0.000301	0.000322
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**N/A**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/09**	**8/09**	**9/09**	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**
Maximum leakage	0.103	0.100	0.100	0.120	0.120	0.120	0.120	0.110	0.120	0.120	0.110	0.110
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.0**	**1.0**	**1.0**	**1.2**	**1.2**	**1.2**	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**	**1.1**
Reactor Coolant System Leakage	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**	**4/11**	**5/11**	**6/11**
Maximum leakage	0.100	0.120	0.110	0.500	0.120	0.110	0.110	0.110	0.130	0.080	0.150	0.170
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.0**	**1.2**	**1.1**	**5.0**	**1.2**	**1.1**	**1.1**	**1.1**	**1.3**	**0.8**	**1.5**	**1.7**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
Successful opportunities	40.0	64.0	34.0	9.0	58.0	12.0	51.0	77.0
Total opportunities	42.0	65.0	34.0	10.0	61.0	13.0	51.0	78.0
Indicator value	**97.6%**	**97.7%**	**97.9%**	**97.8%**	**97.5%**	**97.5%**	**97.6%**	**97.5%**

Licensee Comments: none

Notes

ERO Drill Participation	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
Participating Key personnel	74.0	72.0	74.0	74.0	72.0	74.0	76.0	74.0
Total Key personnel	74.0	72.0	74.0	74.0	72.0	74.0	76.0	74.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
Successful siren-tests	6106	5998	3841	3890	3959	3956	3902	3893
Total sirens-tests	6110	6016	3843	3904	3965	3965	3904	3904
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/09	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: July 22, 2011

Byron 1

3Q/2011 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2038.6	2159.0	2184.0	2208.0	2209.0	1726.0	1642.7	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
Unplanned power changes	0	0	0	1.0	0	0	0	0
Critical hours	2038.6	2159.0	2184.0	2208.0	2209.0	1726.0	1642.7	2208.0
Indicator value	**0**	**0**	**0**	**0.8**	**0.8**	**0.8**	**0.9**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
Safety System Functional Failures	0	0	0	0	0	2	1	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**2**	**3**	**3**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**
UAI (ΔCDF)	3.70E-08	3.41E-08	3.05E-08	2.67E-08	7.32E-08	1.01E-07	1.03E-07	1.05E-07
URI (ΔCDF)	-5.60E-07	-5.66E-07	-4.05E-07	-4.04E-07	-2.39E-07	-2.43E-07	-2.28E-07	-2.39E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.23E-07**	**-5.30E-07**	**-3.70E-07**	**-3.80E-07**	**-1.70E-07**	**-1.40E-07**	**-1.30E-07**	**-1.30E-07**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
UAI (ΔCDF)	8.70E-09	1.54E-08	7.49E-09	1.38E-08	1.33E-08	2.99E-08	2.56E-08	3.41E-08
URI (ΔCDF)	-2.40E-09	-2.40E-09	-2.41E-09	-2.42E-09	-2.42E-09	-2.44E-09	-2.38E-09	-2.39E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**6.30E-09**	**1.30E-08**	**5.10E-09**	**1.10E-08**	**1.10E-08**	**2.70E-08**	**2.30E-08**	**3.20E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
UAI (ΔCDF)	1.30E-07	1.09E-07	6.84E-08	5.84E-08	5.00E-08	-1.55E-08	-1.61E-08	2.81E-08
URI (ΔCDF)	6.40E-09	1.32E-08	1.67E-08	1.74E-08	2.40E-08	-2.53E-07	-2.50E-07	-2.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.36E-07**	**1.20E-07**	**8.50E-08**	**7.60E-08**	**7.40E-08**	**-2.70E-07**	**-2.70E-07**	**-2.20E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
UAI (ΔCDF)	7.30E-08	7.27E-08	7.24E-08	2.29E-07	1.52E-07	9.00E-08	1.04E-07	1.49E-07
URI (ΔCDF)	-8.20E-08	-8.66E-08	-9.04E-08	-9.41E-08	-9.22E-08	-9.04E-08	-8.39E-08	-8.78E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-9.00E-09**	**-1.40E-08**	**-1.80E-08**	**1.40E-07**	**6.00E-08**	**-4.00E-10**	**2.00E-08**	**6.10E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**4Q/09**	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**
UAI (ΔCDF)	1.30E-07	6.13E-08	2.46E-07	2.45E-07	2.39E-07	1.65E-07	2.65E-07	2.63E-07
URI (ΔCDF)	-8.90E-07	-8.96E-07	-8.84E-07	-8.89E-07	-8.89E-07	-8.85E-07	-8.86E-07	-8.92E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.60E-07**	**-8.30E-07**	**-6.40E-07**	**-6.40E-07**	**-6.50E-07**	**-7.20E-07**	**-6.20E-07**	**-6.30E-07**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/09**	**11/09**	**12/09**	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**
Maximum activity	0.001250	0.001090	0.000961	0.000978	0.001000	0.000614	0.000656	0.000920	0.000719	0.000736	0.000785	0.000804
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Reactor Coolant System Activity	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**	**4/11**	**5/11**	**6/11**	**7/11**	**8/11**	**9/11**
Maximum activity	0.000838	0.000873	0.000926	0.000961	0.000963	0.001380	N/A	0.000301	0.000322	0.000341	0.000364	0.000389
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**N/A**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/09	11/09	12/09	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10
Maximum leakage	0.120	0.120	0.120	0.120	0.110	0.120	0.120	0.110	0.110	0.100	0.120	0.110
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.2**	**1.2**	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**	**1.1**	**1.0**	**1.2**	**1.1**
Reactor Coolant System Leakage	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**	**4/11**	**5/11**	**6/11**	**7/11**	**8/11**	**9/11**
Maximum leakage	0.500	0.120	0.110	0.110	0.110	0.130	0.080	0.150	0.170	0.130	0.100	0.090
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**5.0**	**1.2**	**1.1**	**1.1**	**1.1**	**1.3**	**0.8**	**1.5**	**1.7**	**1.3**	**1.0**	**0.9**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
Successful opportunities	64.0	34.0	9.0	58.0	12.0	51.0	77.0	62.0
Total opportunities	65.0	34.0	10.0	61.0	13.0	51.0	78.0	62.0
Indicator value	**97.7%**	**97.9%**	**97.8%**	**97.5%**	**97.5%**	**97.6%**	**97.5%**	**98.1%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
Participating Key personnel	72.0	74.0	74.0	72.0	74.0	76.0	74.0	75.0
Total Key personnel	72.0	74.0	74.0	72.0	74.0	76.0	74.0	75.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
Successful siren-tests	5998	3841	3890	3959	3956	3902	3893	3893
Total sirens-tests	6016	3843	3904	3965	3965	3904	3904	3904
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/09	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: November 29, 2011

Byron 1

4Q/2011 Performance Indicators

Licensee's General Comments: 4th Quarte 2011 Byron Unit 1

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2159.0	2184.0	2208.0	2209.0	1726.0	1642.7	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Unplanned power changes	0	0	1.0	0	0	0	0	0
Critical hours	2159.0	2184.0	2208.0	2209.0	1726.0	1642.7	2208.0	2209.0
Indicator value	**0**	**0**	**0.8**	**0.8**	**0.8**	**0.9**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Safety System Functional Failures	0	0	0	0	2	1	0	0
Indicator value	**0**	**0**	**0**	**0**	**2**	**3**	**3**	**3**

Licensee Comments:

4Q/11: LER 2011-002-00, "Containment Pressure Not Within Limits Longer than Allowed by Technical Specifications Due to Personnel Error"

3Q/10: LER 454-2010-001-00 UG Cable Vaults not vital - No SSFF.LER 455-2010-002-00 "Failed T.S. Ventilation Surv Rqmts During Surv Rqmt 3.0.3 Delay Period". The potential safety significance of the condition is still being evaluated and the results will be updated with the supplement to this LER.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**
UAI (ΔCDF)	3.41E-08	3.05E-08	2.67E-08	7.32E-08	1.01E-07	1.03E-07	1.05E-07	1.02E-07
URI (ΔCDF)	-5.66E-07	-4.05E-07	-4.04E-07	-2.39E-07	-2.43E-07	-2.28E-07	-2.39E-07	-3.34E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.30E-07**	**-3.70E-07**	**-3.80E-07**	**-1.70E-07**	**-1.40E-07**	**-1.30E-07**	**-1.30E-07**	**-2.30E-07**

Licensee Comments:

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**
UAI (ΔCDF)	1.54E-08	7.49E-09	1.38E-08	1.33E-08	2.99E-08	2.56E-08	3.41E-08	2.72E-08
URI (ΔCDF)	-2.40E-09	-2.41E-09	-2.42E-09	-2.42E-09	-2.44E-09	-2.38E-09	-2.39E-09	-1.88E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.30E-08**	**5.10E-09**	**1.10E-08**	**1.10E-08**	**2.70E-08**	**2.30E-08**	**3.20E-08**	**2.50E-08**

Licensee Comments:

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI (ΔCDF)	1.09E-07	6.84E-08	5.84E-08	5.00E-08	-1.55E-08	-1.61E-08	2.81E-08	1.39E-07
URI (ΔCDF)	1.32E-08	1.67E-08	1.74E-08	2.40E-08	-2.53E-07	-2.50E-07	-2.50E-07	-3.14E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.20E-07**	**8.50E-08**	**7.60E-08**	**7.40E-08**	**-2.70E-07**	**-2.70E-07**	**-2.20E-07**	**-1.70E-07**

Licensee Comments:

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**1Q/10**	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**
UAI (ΔCDF)	7.27E-08	7.24E-08	2.29E-07	1.52E-07	9.00E-08	1.04E-07	1.49E-07	1.41E-07
URI (ΔCDF)	-8.40E-08	-8.78E-08	-9.15E-08	-8.96E-08	-8.78E-08	-8.13E-08	-8.52E-08	-1.48E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.10E-08**	**-1.50E-08**	**1.40E-07**	**6.30E-08**	**2.20E-09**	**2.30E-08**	**6.40E-08**	**-7.30E-09**

Licensee Comments:

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

3Q/09: Incorporated Basis Doc Revision 4 changes resulting from PRA Model revsion 6e which incorporated a change to DG mission time and addition of A Train AF cross-tie.

1Q/09: Demand / Run Time reporting for Reliability changed from actuals to estimated!

4Q/06: Corrections made to historical actual UA and Baseline UA

2Q/06: Revised PRA parameters per PRA revision 6D. Changed demand and run time reporting from monthly actuals to estimated.

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
UAI (ΔCDF)	7.36E-08	2.60E-07	2.66E-07	2.59E-07	1.85E-07	2.86E-07	2.89E-07	2.97E-07
URI (ΔCDF)	-8.96E-07	-8.84E-07	-8.89E-07	-8.89E-07	-8.85E-07	-8.86E-07	-8.92E-07	-9.33E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-8.20E-07**	**-6.20E-07**	**-6.20E-07**	**-6.30E-07**	**-7.00E-07**	**-6.00E-07**	**-6.00E-07**	**-6.40E-07**

Licensee Comments:

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

3Q/09: Incorporated Basis Doc Revision 4 changes resulting from PRA Model revsion 6e which incorporated a change to DG mission time and addition of A Train AF cross-tie.

1Q/09: Demand / Run Time reporting for Reliability changed from actuals to estimated!

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**
Maximum activity	0.000978	0.001000	0.000614	0.000656	0.000920	0.000719	0.000736	0.000785	0.000804	0.000838	0.000873	0.000926
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Reactor Coolant System Activity	**1/11**	**2/11**	**3/11**	**4/11**	**5/11**	**6/11**	**7/11**	**8/11**	**9/11**	**10/11**	**11/11**	**12/11**
Maximum activity	0.000961	0.000963	0.001380	N/A	0.000301	0.000322	0.000341	0.000364	0.000389	0.000403	0.000423	0.000441
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**N/A**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/10**	**2/10**	**3/10**	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**
Maximum leakage	0.120	0.110	0.120	0.120	0.110	0.110	0.100	0.120	0.110	0.500	0.120	0.110
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.1**	**1.2**	**1.2**	**1.1**	**1.1**	**1.0**	**1.2**	**1.1**	**5.0**	**1.2**	**1.1**
Reactor Coolant System Leakage	**1/11**	**2/11**	**3/11**	**4/11**	**5/11**	**6/11**	**7/11**	**8/11**	**9/11**	**10/11**	**11/11**	**12/11**
Maximum leakage	0.110	0.110	0.130	0.080	0.150	0.170	0.130	0.100	0.090	0.060	0.060	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.1**	**1.3**	**0.8**	**1.5**	**1.7**	**1.3**	**1.0**	**0.9**	**0.6**	**0.6**	**0.5**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Successful opportunities	34.0	9.0	58.0	12.0	51.0	77.0	62.0	35.0
Total opportunities	34.0	10.0	61.0	13.0	51.0	78.0	62.0	37.0
Indicator value	**97.9%**	**97.8%**	**97.5%**	**97.5%**	**97.6%**	**97.5%**	**98.1%**	**97.7%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Participating Key personnel	74.0	74.0	72.0	74.0	76.0	74.0	75.0	74.0
Total Key personnel	74.0	74.0	72.0	74.0	76.0	74.0	75.0	74.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
Successful siren-tests	3841	3890	3959	3956	3902	3893	3893	3903
Total sirens-tests	3843	3904	3965	3965	3904	3904	3904	3904
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/10	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: February 2, 2012

Byron 1

1Q/2012 Performance Indicators

Licensee's General Comments: Byron Station Unti 1 ROP Change File created April 23, 2012

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	2209.0	1726.0	1642.7	2208.0	2209.0	2082.9
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Unplanned power changes	0	1.0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	2209.0	1726.0	1642.7	2208.0	2209.0	2082.9
Indicator value	**0**	**0.8**	**0.8**	**0.8**	**0.9**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Safety System Functional Failures	0	0	0	2	0	0	0	0
Indicator value	**0**	**0**	**0**	**2**	**2**	**2**	**2**	**0**

Licensee Comments:

1Q/12: Licensee Event Report 2012-001-00, "Unit 2 Loss of Normal Offsite Power and Reactor Trip and Unit 1 Loss of Normal Offsite Power Due to Failure of System Auxiliary Transformer Inverted Insulators" The LER identifies the U2 LOOP as an SSFF.

4Q/11: LER 2011-002-00, "Containment Pressure Not Within Limits Longer than Allowed by Technical Specifications Due to Personnel Error"

2Q/11: May LER 454-2011-003-00: Drained Sections of Piping in AF Suction Lines Result on Sys Inop Due to Inadequate Tech Eval LER retracted, SSFF removed June Supplemental LER 455-2011 -001 -01 "Unit 2 Emergency Diesel Generator Inoperable for Longer than Allowed by Technical Specifications Due to Inadequate Work" confirms SSFF previously reported.

1Q/11: January- LER 454-2010-001-00: Tech Spec AOT Extension Request for CC Contained Inaccurate Information. An SSFF could have occurred with the postulation of design basis assumptions. Mardh-LER 2011-001: Potential Loss of Residual Heat Removal System Safety Function in Mode 4 When Aligned for Shutdown Cooling Due to Potential for Flashing or Voiding of Coolant During a Shutdown Loss of Coolant Accident

3Q/10: LER 454-2010-001-00 UG Cable Vaults not vital - No SSFF.LER 455-2010-002-00 "Failed T.S. Ventilation Surv Rqmts During Surv Rqmt 3.0.3 Delay Period". The potential safety significance of the condition is still being evaluated and the results will be updated with the supplement to this LER.

3Q/10: LER 454-2010-001-00 UG Cable Vaults not vital - No SSFF.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
UAI (ΔCDF)	3.05E-08	2.67E-08	7.32E-08	1.01E-07	1.03E-07	1.05E-07	1.02E-07	5.01E-08
URI (ΔCDF)	-4.05E-07	-4.04E-07	-2.39E-07	-2.43E-07	-2.28E-07	-2.39E-07	-3.34E-07	-4.63E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.70E-07**	**-3.80E-07**	**-1.70E-07**	**-1.40E-07**	**-1.30E-07**	**-1.30E-07**	**-2.30E-07**	**-4.10E-07**

Licensee Comments:

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

1Q/11: Due to typo on paperwork, UA for 1A DG was listed for 1B. This has been corrected.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**
UAI (ΔCDF)	7.49E-09	1.38E-08	1.33E-08	2.99E-08	2.56E-08	3.41E-08	2.72E-08	3.91E-08
URI (ΔCDF)	-2.41E-09	-2.42E-09	-2.42E-09	-2.44E-09	-2.38E-09	-2.39E-09	-1.88E-09	-1.75E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**5.10E-09**	**1.10E-08**	**1.10E-08**	**2.70E-08**	**2.30E-08**	**3.20E-08**	**2.50E-08**	**3.70E-08**

Licensee Comments:

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**
UAI (ΔCDF)	-2.56E-08	-3.78E-08	-4.30E-08	-9.84E-08	-8.24E-08	-8.24E-08	3.04E-08	4.91E-08
URI (ΔCDF)	1.67E-08	1.74E-08	2.40E-08	-2.53E-07	-2.50E-07	-2.50E-07	-3.14E-07	-2.50E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-8.90E-09**	**-2.00E-08**	**-1.90E-08**	**-3.50E-07**	**-3.30E-07**	**-3.30E-07**	**-2.80E-07**	**-2.00E-07**

Licensee Comments:

1Q/12: Prior to this quarter, planned and unplanned unavailability was counted against an AF train whenever the safety-related suction source was unavailable. After discussions with Braidwood and the corporate PRA SME, it was determined that the unavailability should not be counted if the non-safety-related suction source is available. This issue was documented in IR #1334924. Corrections to historical data for the last three years have been made are reflected in this quarters reporting.

4Q/11: Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**
UAI (ΔCDF)	7.24E-08	2.29E-07	1.52E-07	9.00E-08	1.04E-07	1.49E-07	1.41E-07	1.47E-07
URI (ΔCDF)	-8.78E-08	-9.15E-08	-8.96E-08	-8.78E-08	-8.13E-08	-8.52E-08	-1.48E-07	-1.48E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.50E-08**	**1.40E-07**	**6.30E-08**	**2.20E-09**	**2.30E-08**	**6.40E-08**	**-7.30E-09**	**-1.40E-09**

Licensee Comments:

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**2Q/10**	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**
UAI (ΔCDF)	2.60E-07	2.66E-07	2.59E-07	1.85E-07	2.86E-07	2.89E-07	2.97E-07	2.50E-07
URI (ΔCDF)	-8.84E-07	-8.89E-07	-8.89E-07	-8.85E-07	-8.86E-07	-8.92E-07	-9.33E-07	-9.34E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-6.20E-07**	**-6.20E-07**	**-6.30E-07**	**-7.00E-07**	**-6.00E-07**	**-6.00E-07**	**-6.40E-07**	**-6.80E-07**

Licensee Comments:

1Q/12: Changed PRA Parameter(s).

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

4Q/10: Changed PRA Parameter(s).

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**
Maximum activity	0.000656	0.000920	0.000719	0.000736	0.000785	0.000804	0.000838	0.000873	0.000926	0.000961	0.000963	0.001380
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Reactor Coolant System Activity	**4/11**	**5/11**	**6/11**	**7/11**	**8/11**	**9/11**	**10/11**	**11/11**	**12/11**	**1/12**	**2/12**	**3/12**
Maximum activity	N/A	0.000301	0.000322	0.000341	0.000364	0.000389	0.000403	0.000423	0.000441	0.000474	0.000479	0.000509
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**N/A**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/10**	**5/10**	**6/10**	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**
Maximum leakage	0.120	0.110	0.110	0.100	0.120	0.110	0.500	0.120	0.110	0.110	0.110	0.130
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.2**	**1.1**	**1.1**	**1.0**	**1.2**	**1.1**	**5.0**	**1.2**	**1.1**	**1.1**	**1.1**	**1.3**
Reactor Coolant System Leakage	**4/11**	**5/11**	**6/11**	**7/11**	**8/11**	**9/11**	**10/11**	**11/11**	**12/11**	**1/12**	**2/12**	**3/12**
Maximum leakage	0.080	0.150	0.170	0.130	0.100	0.090	0.060	0.060	0.050	0.060	0.060	0.080
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**1.5**	**1.7**	**1.3**	**1.0**	**0.9**	**0.6**	**0.6**	**0.5**	**0.6**	**0.6**	**0.8**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Successful opportunities	9.0	58.0	12.0	51.0	77.0	62.0	35.0	96.0
Total opportunities	10.0	61.0	13.0	51.0	78.0	62.0	37.0	97.0
Indicator value	**97.8%**	**97.5%**	**97.5%**	**97.6%**	**97.5%**	**98.1%**	**97.7%**	**97.8%**

Licensee Comments: none

ERO Drill Participation

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Participating Key personnel	74.0	72.0	74.0	76.0	74.0	75.0	74.0	74.0
Total Key personnel	74.0	72.0	74.0	76.0	74.0	75.0	74.0	74.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
Successful siren-tests	3890	3959	3956	3902	3893	3893	3903	3962
Total sirens-tests	3904	3965	3965	3904	3904	3904	3904	3965
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/10	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Security information not publicly available.

Last Modified: April 24, 2012

Byron 1

2Q/2012 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	1726.0	1642.7	2208.0	2209.0	2082.9	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12
Unplanned power changes	1.0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	1726.0	1642.7	2208.0	2209.0	2082.9	2184.0
Indicator value	**0.8**	**0.8**	**0.8**	**0.9**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12
Safety System Functional Failures	0	0	2	0	0	0	0	1
Indicator value	**0**	**0**	**2**	**2**	**2**	**2**	**0**	**1**

Licensee Comments:

2Q/12: (U2 - April) LER 2012-001-00 - No SSFF (Unit 1 - May) LER 454-2012-002: One Train of Containment Cooling System Inoperable Longer Than Allowed by Technical Specifications Due to Inadequate Work Instructions

1Q/12: Licensee Event Report 2012-001-00, "Unit 2 Loss of Normal Offsite Power and Reactor Trip and Unit 1 Loss of Normal Offsite Power Due to Failure of System Auxiliary Transformer Inverted Insulators" The LER identifies the U2 LOOP as an SSFF.

4Q/11: LER 2011-002-00, "Containment Pressure Not Within Limits Longer than Allowed by Technical Specifications Due to Personnel Error"

2Q/11: May LER 454-2011-003-00: Drained Sections of Piping in AF Suction Lines Result on Sys Inop Due to Inadequate Tech Eval LER retracted, SSFF removed June Supplemental LER 455-2011 -001 -01 "Unit 2 Emergency Diesel Generator Inoperable for Longer than Allowed by Technical Specifications Due to Inadequate Work" confirms SSFF previously reported.

1Q/11: January- LER 454-2010-001-00: Tech Spec AOT Extension Request for CC Contained Inaccurate Information. An SSFF could have occurred with the postulation of design basis assumptions. Mardh-LER 2011-001: Potential Loss of Residual Heat Removal System Safety Function in Mode 4 When Aligned for Shutdown Cooling Due to Potential for Flashing or Voiding of Coolant During a Shutdown Loss of Coolant Accident

3Q/10: LER 454-2010-001-00 UG Cable Vaults not vital - No SSFF.LER 455-2010-002-00 "Failed T.S. Ventilation Surv Rqmts During Surv Rqmt 3.0.3 Delay Period". The potential safety significance of the condition is still being evaluated and the results will be updated with the supplement to this LER.

3Q/10: LER 454-2010-001-00 UG Cable Vaults not vital - No SSFF.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**
UAI (ΔCDF)	2.67E-08	7.32E-08	1.01E-07	1.03E-07	1.05E-07	1.02E-07	5.01E-08	1.77E-08
URI (ΔCDF)	-4.04E-07	-2.39E-07	-2.43E-07	-2.28E-07	-2.39E-07	-3.34E-07	-4.63E-07	-2.63E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.80E-07**	**-1.70E-07**	**-1.40E-07**	**-1.30E-07**	**-1.30E-07**	**-2.30E-07**	**-4.10E-07**	**-2.50E-07**

Licensee Comments:

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

1Q/11: Due to typo on paperwork, UA for 1A DG was listed for 1B. This has been corrected.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**
UAI (ΔCDF)	1.38E-08	1.33E-08	2.99E-08	2.56E-08	3.41E-08	2.72E-08	3.91E-08	4.46E-08
URI (ΔCDF)	-2.42E-09	-2.42E-09	-2.44E-09	-2.38E-09	-2.39E-09	-1.88E-09	-1.75E-09	-6.18E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.10E-08**	**1.10E-08**	**2.70E-08**	**2.30E-08**	**3.20E-08**	**2.50E-08**	**3.70E-08**	**3.80E-08**

Licensee Comments:

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**
UAI (ΔCDF)	-3.78E-08	-4.30E-08	-9.84E-08	-8.24E-08	-8.24E-08	3.04E-08	4.91E-08	-9.20E-08
URI (ΔCDF)	1.74E-08	2.40E-08	-2.53E-07	-2.50E-07	-2.50E-07	-3.14E-07	-2.50E-07	-4.21E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.00E-08**	**-1.90E-08**	**-3.50E-07**	**-3.30E-07**	**-3.30E-07**	**-2.80E-07**	**-2.00E-07**	**-5.10E-07**

Licensee Comments:

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Prior to this quarter, planned and unplanned unavailability was counted against an AF train whenever the safety-related suction source was unavailable. After discussions with Braidwood and the corporate PRA SME, it was determined that the unavailability should not be counted if the non-safety-related suction source is available. This issue was documented in IR #1334924. Corrections to historical data for the last three years have been made are reflected in this quarters reporting.

4Q/11: Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12
UAI (ΔCDF)	2.29E-07	1.52E-07	9.00E-08	1.04E-07	1.49E-07	1.41E-07	1.47E-07	9.87E-08
URI (ΔCDF)	-9.15E-08	-8.96E-08	-8.78E-08	-8.13E-08	-8.52E-08	-1.48E-07	-1.48E-07	-1.31E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.40E-07**	**6.30E-08**	**2.20E-09**	**2.30E-08**	**6.40E-08**	**-7.30E-09**	**-1.40E-09**	**-3.20E-08**

Licensee Comments:

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**3Q/10**	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**
UAI (ΔCDF)	2.66E-07	2.59E-07	1.85E-07	2.86E-07	2.89E-07	2.97E-07	2.50E-07	3.76E-07
URI (ΔCDF)	-8.89E-07	-8.89E-07	-8.85E-07	-8.86E-07	-8.92E-07	-9.33E-07	-9.34E-07	-3.37E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-6.20E-07**	**-6.30E-07**	**-7.00E-07**	**-6.00E-07**	**-6.00E-07**	**-6.40E-07**	**-6.80E-07**	**3.90E-08**

Licensee Comments:

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Changed PRA Parameter(s).

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

4Q/10: Changed PRA Parameter(s).

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	7/10	8/10	9/10	10/10	11/10	12/10	1/11	2/11	3/11	4/11	5/11	6/11
Maximum activity	0.000736	0.000785	0.000804	0.000838	0.000873	0.000926	0.000961	0.000963	0.001380	N/A	0.000301	0.000322
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**N/A**	**0**	**0**

Reactor Coolant System Activity	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	6/12
Maximum activity	0.000341	0.000364	0.000389	0.000403	0.000423	0.000441	0.000474	0.000479	0.000509	0.000532	0.000562	0.000573
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0.1**	**0.1**	**0.1**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/10**	**8/10**	**9/10**	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**	**4/11**	**5/11**	**6/11**
Maximum leakage	0.100	0.120	0.110	0.500	0.120	0.110	0.110	0.110	0.130	0.080	0.150	0.170
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.0**	**1.2**	**1.1**	**5.0**	**1.2**	**1.1**	**1.1**	**1.1**	**1.3**	**0.8**	**1.5**	**1.7**
Reactor Coolant System Leakage	**7/11**	**8/11**	**9/11**	**10/11**	**11/11**	**12/11**	**1/12**	**2/12**	**3/12**	**4/12**	**5/12**	**6/12**
Maximum leakage	0.130	0.100	0.090	0.060	0.060	0.050	0.060	0.060	0.080	0.060	0.060	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.0**	**0.9**	**0.6**	**0.6**	**0.5**	**0.6**	**0.6**	**0.8**	**0.6**	**0.6**	**0.5**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12
Successful opportunities	58.0	12.0	51.0	77.0	62.0	35.0	96.0	126.0
Total opportunities	61.0	13.0	51.0	78.0	62.0	37.0	97.0	126.0
Indicator value	**97.5%**	**97.5%**	**97.6%**	**97.5%**	**98.1%**	**97.7%**	**97.8%**	**98.5%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12
Participating Key personnel	72.0	74.0	76.0	74.0	75.0	74.0	74.0	77.0
Total Key personnel	72.0	74.0	76.0	74.0	75.0	74.0	74.0	77.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12
Successful siren-tests	3959	3956	3902	3893	3893	3903	3962	3903
Total sirens-tests	3965	3965	3904	3904	3904	3904	3965	3904
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.9%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/10	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Byron 1

3Q/2012 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2209.0	1726.0	1642.7	2208.0	2209.0	2082.9	2184.0	1704.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2209.0	1726.0	1642.7	2208.0	2209.0	2082.9	2184.0	1704.0
Indicator value	**0.8**	**0.8**	**0.9**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Safety System Functional Failures	0	2	0	0	0	0	1	0
Indicator value	**0**	**2**	**2**	**2**	**2**	**0**	**1**	**1**

Licensee Comments:

3Q/12: LER 2012-001-01 issued for U2 LOOP and Rx Trip and U1 LOOP due to SAT inverted insulators. Determined to NOT be an event or condition that could prevent fulfillment of a safety function.

2Q/12: (U2 - April) LER 2012-001-00 - No SSFF (Unit 1 - May) LER 454-2012-002: One Train of Containment Cooling System Inoperable Longer Than Allowed by Technical Specifications Due to Inadequate Work Instructions

1Q/12: Licensee Event Report 2012-001-00, "Unit 2 Loss of Normal Offsite Power and Reactor Trip and Unit 1 Loss of Normal Offsite Power Due to Failure of System Auxiliary Transformer Inverted Insulators" The LER identifies the U2 LOOP as an SSFF.

4Q/11: LER 2011-002-00, "Containment Pressure Not Within Limits Longer than Allowed by Technical Specifications Due to Personnel Error"

2Q/11: May LER 454-2011-003-00: Drained Sections of Piping in AF Suction Lines Result on Sys Inop Due to Inadequate Tech Eval LER retracted, SSFF removed June Supplemental LER 455-2011 -001 -01 "Unit 2 Emergency Diesel Generator Inoperable for Longer than Allowed by Technical Specifications Due to Inadequate Work" confirms SSFF previously reported.

1Q/11: January- LER 454-2010-001-00: Tech Spec AOT Extension Request for CC Contained Inaccurate Information. An SSFF could have occurred with the postulation of design basis assumptions. Mardh-LER 2011-

001: Potential Loss of Residual Heat Removal System Safety Function in Mode 4 When Aligned for Shutdown Cooling Due to Potential for Flashing or Voiding of Coolant During a Shutdown Loss of Coolant Accident

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Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**
UAI (ΔCDF)	7.32E-08	1.01E-07	1.03E-07	1.05E-07	1.02E-07	5.01E-08	1.77E-08	1.65E-08
URI (ΔCDF)	-2.39E-07	-2.43E-07	-2.28E-07	-2.39E-07	-3.34E-07	-4.63E-07	-2.63E-07	-2.41E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.70E-07**	**-1.40E-07**	**-1.30E-07**	**-1.30E-07**	**-2.30E-07**	**-4.10E-07**	**-2.50E-07**	**-2.20E-07**

Licensee Comments:

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX

systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

1Q/11: Due to typo on paperwork, UA for 1A DG was listed for 1B. This has been corrected.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**
UAI (ΔCDF)	1.33E-08	2.99E-08	2.56E-08	3.41E-08	2.72E-08	3.91E-08	4.46E-08	2.36E-08
URI (ΔCDF)	-2.42E-09	-2.44E-09	-2.38E-09	-2.39E-09	-1.88E-09	-1.75E-09	-6.18E-09	-6.18E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.10E-08**	**2.70E-08**	**2.30E-08**	**3.20E-08**	**2.50E-08**	**3.70E-08**	**3.80E-08**	**1.70E-08**

Licensee Comments:

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**4Q/10**	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**
UAI (ΔCDF)	-4.30E-08	-9.84E-08	-8.24E-08	-8.24E-08	3.04E-08	4.91E-08	-9.20E-08	-9.20E-08
URI (ΔCDF)	2.40E-08	-2.53E-07	-2.50E-07	-2.50E-07	-3.14E-07	-2.50E-07	-4.21E-07	-4.12E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.90E-08**	**-3.50E-07**	**-3.30E-07**	**-3.30E-07**	**-2.80E-07**	**-2.00E-07**	**-5.10E-07**	**-5.00E-07**

Licensee Comments:

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Prior to this quarter, planned and unplanned unavailability was counted against an AF train whenever the safety-related suction source was unavailable. After discussions with Braidwood and the corporate PRA SME, it was determined that the unavailability should not be counted if the non-safety-related suction source is available. This issue was documented in IR #1334924. Corrections to historical data for the last three years have been made are reflected in this quarters reporting.

4Q/11: Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI (ΔCDF)	1.52E-07	9.00E-08	1.04E-07	1.49E-07	1.41E-07	1.47E-07	9.87E-08	1.86E-07
URI (ΔCDF)	-8.96E-08	-8.78E-08	-8.13E-08	-8.52E-08	-1.48E-07	-1.48E-07	-1.31E-07	-1.31E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**6.30E-08**	**2.20E-09**	**2.30E-08**	**6.40E-08**	**-7.30E-09**	**-1.40E-09**	**-3.20E-08**	**5.50E-08**

Licensee Comments:

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

Notes

Mitigating Systems Performance Index, Cooling Water Systems	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
UAI (ΔCDF)	2.59E-07	1.85E-07	2.86E-07	2.89E-07	2.97E-07	2.50E-07	3.76E-07	3.01E-07
URI (ΔCDF)	-8.89E-07	-8.85E-07	-8.86E-07	-8.92E-07	-9.33E-07	-9.34E-07	-3.45E-07	-3.37E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-6.30E-07**	**-7.00E-07**	**-6.00E-07**	**-6.00E-07**	**-6.40E-07**	**-6.80E-07**	**3.10E-08**	**-3.60E-08**

Licensee Comments:

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Changed PRA Parameter(s).

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

4Q/10: Changed PRA Parameter(s).

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**	**4/11**	**5/11**	**6/11**	**7/11**	**8/11**	**9/11**
Maximum activity	0.000838	0.000873	0.000926	0.000961	0.000963	0.001380	N/A	0.000301	0.000322	0.000341	0.000364	0.000389
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**N/A**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**10/11**	**11/11**	**12/11**	**1/12**	**2/12**	**3/12**	**4/12**	**5/12**	**6/12**	**7/12**	**8/12**	**9/12**
Maximum activity	0.000403	0.000423	0.000441	0.000474	0.000479	0.000509	0.000532	0.000562	0.000573	0.000595	0.000603	0.000594
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**10/10**	**11/10**	**12/10**	**1/11**	**2/11**	**3/11**	**4/11**	**5/11**	**6/11**	**7/11**	**8/11**	**9/11**
Maximum leakage	0.500	0.120	0.110	0.110	0.110	0.130	0.080	0.150	0.170	0.130	0.100	0.090
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**5.0**	**1.2**	**1.1**	**1.1**	**1.1**	**1.3**	**0.8**	**1.5**	**1.7**	**1.3**	**1.0**	**0.9**
Reactor Coolant System Leakage	**10/11**	**11/11**	**12/11**	**1/12**	**2/12**	**3/12**	**4/12**	**5/12**	**6/12**	**7/12**	**8/12**	**9/12**
Maximum leakage	0.060	0.060	0.050	0.060	0.060	0.080	0.060	0.060	0.050	0.050	0.050	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.6**	**0.5**	**0.6**	**0.6**	**0.8**	**0.6**	**0.6**	**0.5**	**0.5**	**0.5**	**0.5**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Successful opportunities	12.0	51.0	77.0	62.0	35.0	96.0	126.0	24.0
Total opportunities	13.0	51.0	78.0	62.0	37.0	97.0	126.0	24.0
Indicator value	**97.5%**	**97.6%**	**97.5%**	**98.1%**	**97.7%**	**97.8%**	**98.5%**	**99.0%**

Licensee Comments: none

Notes

ERO Drill Participation	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Participating Key personnel	74.0	76.0	74.0	75.0	74.0	74.0	77.0	78.0
Total Key personnel	74.0	76.0	74.0	75.0	74.0	74.0	77.0	78.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
Successful siren-tests	3956	3902	3893	3893	3903	3962	3903	3841
Total sirens-tests	3965	3904	3904	3904	3904	3965	3904	3843
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.9%**	**100.0%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/10	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: October 24, 2012

Byron 1

4Q/2012 Performance Indicators

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1726.0	1642.7	2208.0	2209.0	2082.9	2184.0	1704.0	2050.7
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Power Changes per 7000 Critical Hrs

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	1726.0	1642.7	2208.0	2209.0	2082.9	2184.0	1704.0	2050.7
Indicator value	**0.8**	**0.9**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Safety System Functional Failures (PWR)

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Safety System Functional Failures	2	0	0	0	0	1	0	0
Indicator value	**2**	**2**	**2**	**2**	**0**	**1**	**1**	**1**

Licensee Comments:

3Q/12: LER 2012-001-01 issued for U2 LOOP and Rx Trip and U1 LOOP due to SAT inverted insulators. Determined to NOT be an event or condition that could prevent fulfillment of a safety function.

2Q/12: (U2 - April) LER 2012-001-00 - No SSFF (Unit 1 - May) LER 454-2012-002: One Train of Containment Cooling System Inoperable Longer Than Allowed by Technical Specifications Due to Inadequate Work Instructions

1Q/12: Licensee Event Report 2012-001-00, "Unit 2 Loss of Normal Offsite Power and Reactor Trip and Unit 1 Loss of Normal Offsite Power Due to Failure of System Auxiliary Transformer Inverted Insulators" The LER identifies the U2 LOOP as an SSFF.

4Q/11: LER 2011-002-00, "Containment Pressure Not Within Limits Longer than Allowed by Technical Specifications Due to Personnel Error"

2Q/11: May LER 454-2011-003-00: Drained Sections of Piping in AF Suction Lines Result on Sys Inop Due to Inadequate Tech Eval LER retracted, SSFF removed June Supplemental LER 455-2011 -001 -01 "Unit 2 Emergency Diesel Generator Inoperable for Longer than Allowed by Technical Specifications Due to Inadequate Work" confirms SSFF previously reported.

1Q/11: January- LER 454-2010-001-00: Tech Spec AOT Extension Request for CC Contained Inaccurate Information. An SSFF could have occurred with the postulation of design basis assumptions. Mardh-LER 2011-001: Potential Loss of Residual Heat Removal System Safety Function in Mode 4 When Aligned for Shutdown Cooling Due to Potential for Flashing or Voiding of Coolant During a Shutdown Loss of Coolant Accident

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**
UAI (ΔCDF)	1.01E-07	1.03E-07	1.05E-07	1.02E-07	5.01E-08	1.77E-08	1.65E-08	1.74E-08
URI (ΔCDF)	-2.43E-07	-2.28E-07	-2.39E-07	-3.34E-07	-4.63E-07	-2.63E-07	-2.41E-07	-1.31E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.40E-07**	**-1.30E-07**	**-1.30E-07**	**-2.30E-07**	**-4.10E-07**	**-2.50E-07**	**-2.20E-07**	**-1.10E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

1Q/11: Due to typo on paperwork, UA for 1A DG was listed for 1B. This has been corrected.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**
UAI (ΔCDF)	2.99E-08	2.56E-08	3.41E-08	2.72E-08	3.91E-08	4.46E-08	2.36E-08	1.33E-08
URI (ΔCDF)	-2.44E-09	-2.38E-09	-2.39E-09	-1.88E-09	-1.75E-09	-6.18E-09	-6.18E-09	-9.79E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.70E-08**	**2.30E-08**	**3.20E-08**	**2.50E-08**	**3.70E-08**	**3.80E-08**	**1.70E-08**	**3.50E-09**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
UAI (ΔCDF)	-9.84E-08	-8.24E-08	-8.24E-08	3.04E-08	4.91E-08	-9.20E-08	-9.20E-08	-6.24E-08
URI (ΔCDF)	-2.53E-07	-2.50E-07	-2.50E-07	-3.14E-07	-2.50E-07	-4.21E-07	-4.12E-07	-4.03E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.50E-07**	**-3.30E-07**	**-3.30E-07**	**-2.80E-07**	**-2.00E-07**	**-5.10E-07**	**-5.00E-07**	**-4.70E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Prior to this quarter, planned and unplanned unavailability was counted against an AF train whenever the safety-related suction source was unavailable. After discussions with Braidwood and the corporate PRA SME, it was determined that the unavailability should not be counted if the non-safety-related suction source is available. This issue was documented in IR #1334924. Corrections to historical data for the last three years have been made are reflected in this quarters reporting.

4Q/11: Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the

addition of a revised internal flooding study.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**
UAI (ΔCDF)	9.00E-08	1.04E-07	1.49E-07	1.41E-07	1.47E-07	9.87E-08	1.86E-07	1.28E-07
URI (ΔCDF)	-8.78E-08	-8.13E-08	-8.52E-08	-1.48E-07	-1.48E-07	-1.31E-07	3.27E-07	2.84E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.20E-09**	**2.30E-08**	**6.40E-08**	**-7.30E-09**	**-1.40E-09**	**-3.20E-08**	**5.10E-07**	**4.10E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**1Q/11**	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**
UAI (ΔCDF)	1.85E-07	2.86E-07	2.89E-07	2.97E-07	2.50E-07	3.76E-07	3.01E-07	1.72E-07
URI (ΔCDF)	-8.85E-07	-8.86E-07	-8.92E-07	-9.33E-07	-9.34E-07	-3.45E-07	-2.04E-07	-3.99E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.00E-07**	**-6.00E-07**	**-6.00E-07**	**-6.40E-07**	**-6.80E-07**	**3.10E-08**	**9.60E-08**	**1.30E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Changed PRA Parameter(s).

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11
Maximum activity	0.000961	0.000963	0.001380	N/A	0.000301	0.000322	0.000341	0.000364	0.000389	0.000403	0.000423	0.000441
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**N/A**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor												

Coolant System Activity	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12
Maximum activity	0.000474	0.000479	0.000509	0.000532	0.000562	0.000573	0.000595	0.000603	0.000594	0.000220	0.000238	0.000252
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0**	**0**	**0**

Licensee Comments: none

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11
Maximum leakage	0.110	0.110	0.130	0.080	0.150	0.170	0.130	0.100	0.090	0.060	0.060	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.1**	**1.1**	**1.3**	**0.8**	**1.5**	**1.7**	**1.3**	**1.0**	**0.9**	**0.6**	**0.6**	**0.5**

Reactor Coolant System Leakage	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12
Maximum leakage	0.060	0.060	0.080	0.060	0.060	0.050	0.050	0.050	0.050	0.060	0.050	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.6**	**0.8**	**0.6**	**0.6**	**0.5**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.5**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Successful opportunities	51.0	77.0	62.0	35.0	96.0	126.0	24.0	3.0
Total opportunities	51.0	78.0	62.0	37.0	97.0	126.0	24.0	3.0
Indicator value	**97.6%**	**97.5%**	**98.1%**	**97.7%**	**97.8%**	**98.5%**	**99.0%**	**99.2%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Participating Key personnel	76.0	74.0	75.0	74.0	74.0	77.0	78.0	78.0
Total Key personnel	76.0	74.0	75.0	74.0	74.0	77.0	78.0	78.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
Successful siren-tests	3902	3893	3893	3903	3962	3903	3841	3904
Total sirens-tests	3904	3904	3904	3904	3965	3904	3843	3904
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.9%**	**100.0%**	**100.0%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

RETS/ODCM Radiological Effluent

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/11	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Last Modified: January 23, 2013

Byron 1

1Q/2013 Performance Indicators

Licensee's General Comments: Byron Unit 1

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1642.7	2208.0	2209.0	2082.9	2184.0	1704.0	2050.7	2159.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	1642.7	2208.0	2209.0	2082.9	2184.0	1704.0	2050.7	2159.0
Indicator value	**0.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Safety System Functional Failures	0	0	0	0	1	0	0	1
Indicator value	**2**	**2**	**2**	**0**	**1**	**1**	**1**	**2**

Licensee Comments:

1Q/13: LER 454-2012-003-01, Containment Area Radiation Monitors Inoperable for Longer than Allowed By Technical Specifications Due to Inadequate Procedure Controls

3Q/12: LER 2012-001-01 issued for U2 LOOP and Rx Trip and U1 LOOP due to SAT inverted insulators. Determined to NOT be an event or condition that could prevent fulfillment of a safety function.

2Q/12: (U2 - April) LER 2012-001-00 - No SSFF (Unit 1 - May) LER 454-2012-002: One Train of Containment Cooling System Inoperable Longer Than Allowed by Technical Specifications Due to Inadequate Work Instructions

1Q/12: Licensee Event Report 2012-001-00, "Unit 2 Loss of Normal Offsite Power and Reactor Trip and Unit 1 Loss of Normal Offsite Power Due to Failure of System Auxiliary Transformer Inverted Insulators" The LER identifies the U2 LOOP as an SSFF.

4Q/11: LER 2011-002-00, "Containment Pressure Not Within Limits Longer than Allowed by Technical Specifications Due to Personnel Error"

2Q/11: May LER 454-2011-003-00: Drained Sections of Piping in AF Suction Lines Result on Sys Inop Due to Inadequate Tech Eval LER retracted, SSFF removed June Supplemental LER 455-2011 -001 -01 "Unit 2 Emergency Diesel Generator Inoperable for Longer than Allowed by Technical Specifications Due to Inadequate Work" confirms SSFF previously reported.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**
UAI (ΔCDF)	1.03E-07	1.05E-07	1.02E-07	5.01E-08	1.77E-08	1.65E-08	1.64E-08	7.00E-08
URI (ΔCDF)	-2.28E-07	-2.39E-07	-3.34E-07	-4.63E-07	-2.63E-07	-2.41E-07	-1.24E-07	-1.09E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.30E-07**	**-1.30E-07**	**-2.30E-07**	**-4.10E-07**	**-2.50E-07**	**-2.20E-07**	**-1.10E-07**	**-3.90E-08**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX

systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**
UAI (ΔCDF)	2.56E-08	3.41E-08	2.72E-08	3.91E-08	4.46E-08	2.36E-08	1.26E-08	1.26E-08
URI (ΔCDF)	-2.38E-09	-2.39E-09	-1.88E-09	-1.75E-09	-6.18E-09	-6.18E-09	-9.27E-09	-9.27E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.30E-08**	**3.20E-08**	**2.50E-08**	**3.70E-08**	**3.80E-08**	**1.70E-08**	**3.30E-09**	**3.30E-09**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**
UAI (ΔCDF)	-8.24E-08	-8.24E-08	3.04E-08	4.91E-08	-9.20E-08	-9.20E-08	-5.91E-08	-4.31E-08
URI (ΔCDF)	-2.50E-07	-2.50E-07	-3.14E-07	-2.50E-07	-4.21E-07	-4.12E-07	-3.82E-07	-3.82E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.30E-07**	**-3.30E-07**	**-2.80E-07**	**-2.00E-07**	**-5.10E-07**	**-5.00E-07**	**-4.40E-07**	**-4.20E-07**

Licensee Comments:

1Q/13: U1-U2 Train A Cross-tie considered unavailable starting on 10/28/2011 when standing order 11-057 and 1/2BFR H.1 procedure revisions were issued to remove procedural guidance on use of the crosstie modification pending NRC approval. Reference IR#01257908.

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Prior to this quarter, planned and unplanned unavailability was counted against an AF train whenever the safety-related suction source was unavailable. After discussions with Braidwood and the corporate PRA SME, it was determined that the unavailability should not be counted if the non-safety-related suction source is available. This issue was documented in IR #1334924. Corrections to historical data for the last three years have been made are reflected in this quarters reporting.

4Q/11: Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI (ΔCDF)	1.04E-07	1.49E-07	1.41E-07	1.47E-07	9.87E-08	1.86E-07	1.21E-07	5.14E-08
URI (ΔCDF)	-8.13E-08	-8.52E-08	-1.48E-07	-1.48E-07	-1.31E-07	3.27E-07	2.69E-07	2.69E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.30E-08**	**6.40E-08**	**-7.30E-09**	**-1.40E-09**	**-3.20E-08**	**5.10E-07**	**3.90E-07**	**3.20E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI

scoping due to Birnbaum value less than 1.0E-06.

Notes

Mitigating Systems Performance Index, Cooling Water Systems	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
UAI (ΔCDF)	2.86E-07	2.89E-07	2.97E-07	2.50E-07	3.76E-07	3.01E-07	1.63E-07	2.66E-07
URI (ΔCDF)	-8.86E-07	-8.92E-07	-9.33E-07	-9.34E-07	-3.45E-07	-2.04E-07	-3.78E-08	-3.26E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-6.00E-07**	**-6.00E-07**	**-6.40E-07**	**-6.80E-07**	**3.10E-08**	**9.60E-08**	**1.20E-07**	**2.30E-07**

Licensee Comments:

1Q/13: Planned work windows

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Changed PRA Parameter(s).

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12
Maximum activity	N/A	0.000301	0.000322	0.000341	0.000364	0.000389	0.000403	0.000423	0.000441	0.000474	0.000479	0.000509
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**N/A**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**

Reactor Coolant System Activity	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13
Maximum activity	0.000532	0.000562	0.000573	0.000595	0.000603	0.000594	0.000220	0.000238	0.000252	0.000265	0.000284	0.000300
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Notes

Reactor Coolant System Leakage	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12
Maximum leakage	0.080	0.150	0.170	0.130	0.100	0.090	0.060	0.060	0.050	0.060	0.060	0.080
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.8**	**1.5**	**1.7**	**1.3**	**1.0**	**0.9**	**0.6**	**0.6**	**0.5**	**0.6**	**0.6**	**0.8**
Reactor Coolant System Leakage	**4/12**	**5/12**	**6/12**	**7/12**	**8/12**	**9/12**	**10/12**	**11/12**	**12/12**	**1/13**	**2/13**	**3/13**
Maximum leakage	0.060	0.060	0.050	0.050	0.050	0.050	0.060	0.050	0.050	0.060	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.6**	**0.5**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.5**	**0.6**	**0.4**	**0.4**

Licensee Comments: none

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Successful opportunities	77.0	62.0	35.0	96.0	126.0	24.0	3.0	104.0
Total opportunities	78.0	62.0	37.0	97.0	126.0	24.0	3.0	104.0

Indicator value	**97.5%**	**98.1%**	**97.7%**	**97.8%**	**98.5%**	**99.0%**	**99.2%**	**99.2%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	**2Q/11**	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**
Participating Key personnel	74.0	75.0	74.0	74.0	77.0	78.0	78.0	78.0
Total Key personnel	74.0	75.0	74.0	74.0	77.0	78.0	78.0	78.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
Successful siren-tests	3893	3893	3903	3962	3903	3841	3904	3902
Total sirens-tests	3904	3904	3904	3965	3904	3843	3904	3904
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.8%**	**99.9%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/11	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: April 23, 2013

Byron 1

2Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station 2nd Quarter 2013 Unit 1

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	2082.9	2184.0	1704.0	2050.7	2159.0	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	2082.9	2184.0	1704.0	2050.7	2159.0	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Safety System Functional Failures	0	0	0	1	0	0	1	0
Indicator value	**2**	**2**	**0**	**1**	**1**	**1**	**2**	**1**

Licensee Comments:

1Q/13: LER 454-2012-003-01, Containment Area Radiation Monitors Inoperable for Longer than Allowed By Technical Specifications Due to Inadequate Procedure Controls

3Q/12: LER 2012-001-01 issued for U2 LOOP and Rx Trip and U1 LOOP due to SAT inverted insulators. Determined to NOT be an event or condition that could prevent fulfillment of a safety function.

2Q/12: (U2 - April) LER 2012-001-00 - No SSFF (Unit 1 - May) LER 454-2012-002: One Train of Containment Cooling System Inoperable Longer Than Allowed by Technical Specifications Due to Inadequate Work Instructions

1Q/12: Licensee Event Report 2012-001-00, "Unit 2 Loss of Normal Offsite Power and Reactor Trip and Unit 1 Loss of Normal Offsite Power Due to Failure of System Auxiliary Transformer Inverted Insulators" The LER identifies the U2 LOOP as an SSFF.

4Q/11: LER 2011-002-00, "Containment Pressure Not Within Limits Longer than Allowed by Technical Specifications Due to Personnel Error"

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**
UAI (ΔCDF)	1.05E-07	1.02E-07	5.01E-08	1.77E-08	1.65E-08	1.64E-08	7.00E-08	7.50E-08
URI (ΔCDF)	-2.39E-07	-3.34E-07	-4.63E-07	-2.63E-07	-2.41E-07	-1.24E-07	-1.09E-07	-2.17E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.30E-07**	**-2.30E-07**	**-4.10E-07**	**-2.50E-07**	**-2.20E-07**	**-1.10E-07**	**-3.90E-08**	**-1.40E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised

Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**
UAI (ΔCDF)	3.41E-08	2.72E-08	3.91E-08	4.46E-08	2.36E-08	1.26E-08	1.26E-08	1.26E-08
URI (ΔCDF)	-2.39E-09	-1.88E-09	-1.75E-09	-6.18E-09	-6.18E-09	-9.27E-09	-9.27E-09	-9.27E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.20E-08**	**2.50E-08**	**3.70E-08**	**3.80E-08**	**1.70E-08**	**3.30E-09**	**3.30E-09**	**3.30E-09**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

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Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**
UAI (ΔCDF)	-8.24E-08	3.04E-08	4.91E-08	-9.20E-08	-9.20E-08	-5.91E-08	-4.31E-08	-4.08E-08
URI (ΔCDF)	-2.50E-07	-3.14E-07	-2.50E-07	-4.21E-07	-4.12E-07	-3.82E-07	-3.82E-07	-3.82E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.30E-07**	**-2.80E-07**	**-2.00E-07**	**-5.10E-07**	**-5.00E-07**	**-4.40E-07**	**-4.20E-07**	**-4.20E-07**

Licensee Comments:

1Q/13: U1-U2 Train A Cross-tie considered unavailable starting on 10/28/2011 when standing order 11-057 and 1/2BFR H.1 procedure revisions were issued to remove procedural guidance on use of the crosstie modification pending NRC approval. Reference IR#01257908.

4Q/12: Changed PRA Parameter(s).

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3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Prior to this quarter, planned and unplanned unavailability was counted against an AF train whenever the safety-related suction source was unavailable. After discussions with Braidwood and the corporate PRA SME, it was determined that the unavailability should not be counted if the non-safety-related suction source is available. This issue was documented in IR #1334924. Corrections to historical data for the last three years have been made are reflected in this quarters reporting.

4Q/11: Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**3Q/11**	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**
UAI (ΔCDF)	1.49E-07	1.41E-07	1.47E-07	9.87E-08	1.86E-07	1.21E-07	5.14E-08	5.14E-08
URI (ΔCDF)	-8.52E-08	-1.48E-07	-1.48E-07	-1.31E-07	3.27E-07	2.69E-07	2.69E-07	2.69E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**6.40E-08**	**-7.30E-09**	**-1.40E-09**	**-3.20E-08**	**5.10E-07**	**3.90E-07**	**3.20E-07**	**3.20E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI

scoping due to Birnbaum value less than 1.0E-06.

Notes

Mitigating Systems Performance Index, Cooling Water Systems	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
UAI (ΔCDF)	2.89E-07	2.97E-07	2.50E-07	3.76E-07	3.01E-07	1.63E-07	2.66E-07	4.86E-08
URI (ΔCDF)	-8.92E-07	-9.33E-07	-9.34E-07	-3.45E-07	-2.04E-07	-3.78E-08	-3.26E-08	-2.72E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-6.00E-07**	**-6.40E-07**	**-6.80E-07**	**3.10E-08**	**9.60E-08**	**1.20E-07**	**2.30E-07**	**2.10E-08**

Licensee Comments:

2Q/13: Changed PRA Parameter(s).

1Q/13: Planned work windows

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Changed PRA Parameter(s).

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/11**	**8/11**	**9/11**	**10/11**	**11/11**	**12/11**	**1/12**	**2/12**	**3/12**	**4/12**	**5/12**	**6/12**
Maximum activity	0.000341	0.000364	0.000389	0.000403	0.000423	0.000441	0.000474	0.000479	0.000509	0.000532	0.000562	0.000573
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0.1**	**0.1**	**0.1**

Reactor Coolant System Activity	**7/12**	**8/12**	**9/12**	**10/12**	**11/12**	**12/12**	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**
Maximum activity	0.000595	0.000603	0.000594	0.000220	0.000238	0.000252	0.000265	0.000284	0.000300	0.000307	0.000335	0.000360
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	6/12
Maximum leakage	0.130	0.100	0.090	0.060	0.060	0.050	0.060	0.060	0.080	0.060	0.060	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.0**	**0.9**	**0.6**	**0.6**	**0.5**	**0.6**	**0.6**	**0.8**	**0.6**	**0.6**	**0.5**
Reactor Coolant System Leakage	**7/12**	**8/12**	**9/12**	**10/12**	**11/12**	**12/12**	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**
Maximum leakage	0.050	0.050	0.050	0.060	0.050	0.050	0.060	0.040	0.040	0.040	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.5**	**0.6**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Successful opportunities	62.0	35.0	96.0	126.0	24.0	3.0	104.0	12.0
Total opportunities	62.0	37.0	97.0	126.0	24.0	3.0	104.0	12.0
Indicator value	**98.1%**	**97.7%**	**97.8%**	**98.5%**	**99.0%**	**99.2%**	**99.2%**	**99.4%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Participating Key personnel	75.0	74.0	74.0	77.0	78.0	78.0	78.0	76.0
Total Key personnel	75.0	74.0	74.0	77.0	78.0	78.0	78.0	76.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
Successful siren-tests	3893	3903	3962	3903	3841	3904	3902	3900
Total sirens-tests	3904	3904	3965	3904	3843	3904	3904	3904
Indicator value	**99.8%**	**99.8%**	**99.8%**	**99.9%**	**100.0%**	**100.0%**	**100.0%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/11	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: August 19, 2013

Byron 1

3Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station Unit 1 3Q2013

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2209.0	2082.9	2184.0	1704.0	2050.7	2159.0	2184.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2209.0	2082.9	2184.0	1704.0	2050.7	2159.0	2184.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Safety System Functional Failures	0	0	1	0	0	1	0	0
Indicator value	**2**	**0**	**1**	**1**	**1**	**2**	**1**	**1**

Licensee Comments:

1Q/13: LER 454-2012-003-01, Containment Area Radiation Monitors Inoperable for Longer than Allowed By Technical Specifications Due to Inadequate Procedure Controls

3Q/12: LER 2012-001-01 issued for U2 LOOP and Rx Trip and U1 LOOP due to SAT inverted insulators. Determined to NOT be an event or condition that could prevent fulfillment of a safety function.

2Q/12: (U2 - April) LER 2012-001-00 - No SSFF (Unit 1 - May) LER 454-2012-002: One Train of Containment Cooling System Inoperable Longer Than Allowed by Technical Specifications Due to Inadequate Work Instructions

1Q/12: Licensee Event Report 2012-001-00, "Unit 2 Loss of Normal Offsite Power and Reactor Trip and Unit 1 Loss of Normal Offsite Power Due to Failure of System Auxiliary Transformer Inverted Insulators" The LER identifies the U2 LOOP as an SSFF.

4Q/11: LER 2011-002-00, "Containment Pressure Not Within Limits Longer than Allowed by Technical Specifications Due to Personnel Error"

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**
UAI (ΔCDF)	1.02E-07	5.01E-08	1.77E-08	1.65E-08	1.64E-08	7.00E-08	7.50E-08	7.68E-08
URI (ΔCDF)	-3.34E-07	-4.63E-07	-2.63E-07	-2.41E-07	-1.24E-07	-1.09E-07	-2.17E-07	-2.05E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.30E-07**	**-4.10E-07**	**-2.50E-07**	**-2.20E-07**	**-1.10E-07**	**-3.90E-08**	**-1.40E-07**	**-1.30E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised

Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**
UAI (ΔCDF)	2.72E-08	3.91E-08	4.46E-08	2.36E-08	1.26E-08	1.26E-08	1.26E-08	3.49E-09
URI (ΔCDF)	-1.88E-09	-1.75E-09	-6.18E-09	-6.18E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.50E-08**	**3.70E-08**	**3.80E-08**	**1.70E-08**	**3.30E-09**	**3.30E-09**	**3.30E-09**	**-5.80E-09**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**
UAI (ΔCDF)	3.04E-08	4.91E-08	-9.20E-08	-9.20E-08	-5.91E-08	-4.31E-08	-4.08E-08	-4.11E-08
URI (ΔCDF)	-3.14E-07	-2.50E-07	-4.21E-07	-4.12E-07	-3.82E-07	-3.82E-07	-3.82E-07	-3.85E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.80E-07**	**-2.00E-07**	**-5.10E-07**	**-5.00E-07**	**-4.40E-07**	**-4.20E-07**	**-4.20E-07**	**-4.30E-07**

Licensee Comments:

1Q/13: U1-U2 Train A Cross-tie considered unavailable starting on 10/28/2011 when standing order 11-057 and 1/2BFR H.1 procedure revisions were issued to remove procedural guidance on use of the crosstie modification pending NRC approval. Reference IR#01257908.

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Prior to this quarter, planned and unplanned unavailability was counted against an AF train whenever the safety-related suction source was unavailable. After discussions with Braidwood and the corporate PRA SME, it was determined that the unavailability should not be counted if the non-safety-related suction source is available. This issue was documented in IR #1334924. Corrections to historical data for the last three years have been made are reflected in this quarters reporting.

4Q/11: Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**4Q/11**	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**
UAI (ΔCDF)	1.41E-07	1.47E-07	9.87E-08	1.86E-07	1.21E-07	5.14E-08	5.14E-08	-2.32E-08
URI (ΔCDF)	-1.48E-07	-1.48E-07	-1.31E-07	3.27E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.30E-09**	**-1.40E-09**	**-3.20E-08**	**5.10E-07**	**3.90E-07**	**3.20E-07**	**3.20E-07**	**2.50E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC

trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
UAI (ΔCDF)	2.97E-07	2.50E-07	3.76E-07	3.01E-07	1.63E-07	2.66E-07	4.86E-08	4.56E-08
URI (ΔCDF)	-9.33E-07	-9.34E-07	-3.45E-07	-2.04E-07	-3.78E-08	-3.26E-08	-2.72E-08	-2.16E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-6.40E-07**	**-6.80E-07**	**3.10E-08**	**9.60E-08**	**1.20E-07**	**2.30E-07**	**2.10E-08**	**2.40E-08**

Licensee Comments:

2Q/13: Changed PRA Parameter(s).

1Q/13: Planned work windows

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Changed PRA Parameter(s).

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

4Q/11: Changed PRA Parameter(s). Byron PRA Model Revision No: 6F approved September 29, 2011, revised Unit 1 and Unit 2 PRA inputs due to a change in the plant operations which calls for preemptively splitting CC trains Post-LOCA and the addition of a revised internal flooding study. 1/2RH8716A/B were removed from MSPI scoping due to Birnbaum value less than 1.0E-06.

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/11**	**11/11**	**12/11**	**1/12**	**2/12**	**3/12**	**4/12**	**5/12**	**6/12**	**7/12**	**8/12**	**9/12**
Maximum activity	0.000403	0.000423	0.000441	0.000474	0.000479	0.000509	0.000532	0.000562	0.000573	0.000595	0.000603	0.000594
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**

Reactor Coolant System Activity	**10/12**	**11/12**	**12/12**	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**
Maximum activity	0.000220	0.000238	0.000252	0.000265	0.000284	0.000300	0.000307	0.000335	0.000360	0.000367	0.000392	0.000406
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12
Maximum leakage	0.060	0.060	0.050	0.060	0.060	0.080	0.060	0.060	0.050	0.050	0.050	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.6**	**0.5**	**0.6**	**0.6**	**0.8**	**0.6**	**0.6**	**0.5**	**0.5**	**0.5**	**0.5**
Reactor Coolant System Leakage	**10/12**	**11/12**	**12/12**	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**
Maximum leakage	0.060	0.050	0.050	0.060	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.5**	**0.5**	**0.6**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Successful opportunities	35.0	96.0	126.0	24.0	3.0	104.0	12.0	55.0
Total opportunities	37.0	97.0	126.0	24.0	3.0	104.0	12.0	55.0
Indicator value	**97.7%**	**97.8%**	**98.5%**	**99.0%**	**99.2%**	**99.2%**	**99.4%**	**99.3%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Participating Key personnel	74.0	74.0	77.0	78.0	78.0	78.0	76.0	71.0
Total Key personnel	74.0	74.0	77.0	78.0	78.0	78.0	76.0	71.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
Successful siren-tests	3903	3962	3903	3841	3904	3902	3900	3903
Total sirens-tests	3904	3965	3904	3843	3904	3904	3904	3904
Indicator value	**99.8%**	**99.8%**	**99.9%**	**100.0%**	**100.0%**	**100.0%**	**99.9%**	**100.0%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/11	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: October 22, 2013

Byron 1

4Q/2013 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station Unit 1 4th Quarter 2014

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2082.9	2184.0	1704.0	2050.7	2159.0	2184.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2082.9	2184.0	1704.0	2050.7	2159.0	2184.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Safety System Functional Failures	0	1	0	0	1	0	0	0
Indicator value	**0**	**1**	**1**	**1**	**2**	**1**	**1**	**1**

Licensee Comments:

1Q/13: LER 454-2012-003-01, Containment Area Radiation Monitors Inoperable for Longer than Allowed By Technical Specifications Due to Inadequate Procedure Controls

3Q/12: LER 2012-001-01 issued for U2 LOOP and Rx Trip and U1 LOOP due to SAT inverted insulators. Determined to NOT be an event or condition that could prevent fulfillment of a safety function.

2Q/12: (U2 - April) LER 2012-001-00 - No SSFF (Unit 1 - May) LER 454-2012-002: One Train of Containment Cooling System Inoperable Longer Than Allowed by Technical Specifications Due to Inadequate Work Instructions

1Q/12: Licensee Event Report 2012-001-00, "Unit 2 Loss of Normal Offsite Power and Reactor Trip and Unit 1 Loss of Normal Offsite Power Due to Failure of System Auxiliary Transformer Inverted Insulators" The LER identifies the U2 LOOP as an SSFF.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**
UAI (ΔCDF)	5.01E-08	1.77E-08	1.65E-08	1.64E-08	7.00E-08	7.50E-08	7.68E-08	3.96E-08
URI (ΔCDF)	-4.63E-07	-2.63E-07	-2.41E-07	-1.24E-07	-1.09E-07	-2.17E-07	-2.05E-07	-3.26E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-4.10E-07**	**-2.50E-07**	**-2.20E-07**	**-1.10E-07**	**-3.90E-08**	**-1.40E-07**	**-1.30E-07**	**-2.90E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**
UAI (ΔCDF)	3.91E-08	4.46E-08	2.36E-08	1.26E-08	1.26E-08	1.26E-08	3.49E-09	1.50E-08
URI (ΔCDF)	-1.75E-09	-6.18E-09	-6.18E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.70E-08**	**3.80E-08**	**1.70E-08**	**3.30E-09**	**3.30E-09**	**3.30E-09**	**-5.80E-09**	**5.70E-09**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (ΔCDF)	4.91E-08	-9.20E-08	-9.20E-08	-5.91E-08	-4.31E-08	-4.08E-08	-4.11E-08	4.25E-08
URI (ΔCDF)	-2.50E-07	-4.21E-07	-4.12E-07	-3.82E-07	-3.82E-07	-3.82E-07	-3.85E-07	-3.87E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.00E-07**	**-5.10E-07**	**-5.00E-07**	**-4.40E-07**	**-4.20E-07**	**-4.20E-07**	**-4.30E-07**	**-3.40E-07**

Licensee Comments:

1Q/13: U1-U2 Train A Cross-tie considered unavailable starting on 10/28/2011 when standing order 11-057 and 1/2BFR H.1 procedure revisions were issued to remove procedural guidance on use of the crosstie modification pending NRC approval. Reference IR#01257908.

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Prior to this quarter, planned and unplanned unavailability was counted against an AF train whenever the safety-related suction source was unavailable. After discussions with Braidwood and the corporate PRA SME, it was determined that the unavailability should not be counted if the non-safety-related suction source is available. This issue was documented in IR #1334924. Corrections to historical data for the last three years have been made are reflected in this quarters reporting.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**1Q/12**	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**
UAI (ΔCDF)	1.47E-07	9.87E-08	1.86E-07	1.21E-07	5.14E-08	5.14E-08	-2.32E-08	-3.33E-08
URI (ΔCDF)	-1.48E-07	-1.31E-07	3.27E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.40E-09**	**-3.20E-08**	**5.10E-07**	**3.90E-07**	**3.20E-07**	**3.20E-07**	**2.50E-07**	**2.40E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
UAI (ΔCDF)	2.50E-07	3.76E-07	3.01E-07	1.63E-07	2.66E-07	4.86E-08	4.56E-08	5.74E-08
URI (ΔCDF)	-9.34E-07	-3.45E-07	-2.04E-07	-3.78E-08	-3.26E-08	-2.72E-08	-2.16E-08	-1.58E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO

Indicator value	**-6.80E-07**	**3.10E-08**	**9.60E-08**	**1.20E-07**	**2.30E-07**	**2.10E-08**	**2.40E-08**	**4.20E-08**

Licensee Comments:

2Q/13: Changed PRA Parameter(s).

1Q/13: Planned work windows

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

1Q/12: Changed PRA Parameter(s).

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/12**	**2/12**	**3/12**	**4/12**	**5/12**	**6/12**	**7/12**	**8/12**	**9/12**	**10/12**	**11/12**	**12/12**
Maximum activity	0.000474	0.000479	0.000509	0.000532	0.000562	0.000573	0.000595	0.000603	0.000594	0.000220	0.000238	0.000252
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0**	**0**	**0**
Reactor Coolant System Activity	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**
Maximum activity	0.000265	0.000284	0.000300	0.000307	0.000335	0.000360	0.000367	0.000392	0.000406	0.000418	0.000436	0.000453
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/12**	**2/12**	**3/12**	**4/12**	**5/12**	**6/12**	**7/12**	**8/12**	**9/12**	**10/12**	**11/12**	**12/12**
Maximum leakage	0.060	0.060	0.080	0.060	0.060	0.050	0.050	0.050	0.050	0.060	0.050	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.6**	**0.8**	**0.6**	**0.6**	**0.5**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.5**
Reactor Coolant System Leakage	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**
Maximum leakage	0.060	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.050	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**	**0.4**	**0.4**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful opportunities	96.0	126.0	24.0	3.0	104.0	12.0	55.0	32.0
Total opportunities	97.0	126.0	24.0	3.0	104.0	12.0	55.0	32.0
Indicator value	**97.8%**	**98.5%**	**99.0%**	**99.2%**	**99.2%**	**99.4%**	**99.3%**	**99.8%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Participating Key personnel	74.0	77.0	78.0	78.0	78.0	76.0	71.0	74.0
Total Key personnel	74.0	77.0	78.0	78.0	78.0	76.0	71.0	74.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
Successful siren-tests	3962	3903	3841	3904	3902	3900	3903	3900
Total sirens-tests	3965	3904	3843	3904	3904	3904	3904	3904
Indicator value	**99.8%**	**99.9%**	**100.0%**	**100.0%**	**100.0%**	**99.9%**	**100.0%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/12	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: January 22, 2014

Byron 1

1Q/2014 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: 1Q2014 BYRON STATION UNIT 1

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.0	1704.0	2050.7	2159.0	2184.0	2208.0	2209.0	1735.7
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2184.0	1704.0	2050.7	2159.0	2184.0	2208.0	2209.0	1735.7
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14
Safety System Functional Failures	1	0	0	1	0	0	0	0
Indicator value	**1**	**1**	**1**	**2**	**1**	**1**	**1**	**0**

Licensee Comments:

1Q/13: LER 454-2012-003-01, Containment Area Radiation Monitors Inoperable for Longer than Allowed By Technical Specifications Due to Inadequate Procedure Controls

3Q/12: LER 2012-001-01 issued for U2 LOOP and Rx Trip and U1 LOOP due to SAT inverted insulators. Determined to NOT be an event or condition that could prevent fulfillment of a safety function.

2Q/12: (U2 - April) LER 2012-001-00 - No SSFF (Unit 1 - May) LER 454-2012-002: One Train of Containment Cooling System Inoperable Longer Than Allowed by Technical Specifications Due to Inadequate Work Instructions

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**
UAI (ΔCDF)	1.77E-08	1.65E-08	1.64E-08	7.00E-08	7.50E-08	7.68E-08	3.96E-08	4.04E-09
URI (ΔCDF)	-2.63E-07	-2.41E-07	-1.24E-07	-1.09E-07	-2.17E-07	-2.05E-07	-3.26E-07	-3.20E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.50E-07**	**-2.20E-07**	**-1.10E-07**	**-3.90E-08**	**-1.40E-07**	**-1.30E-07**	**-2.90E-07**	**-3.20E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**
UAI (ΔCDF)	4.46E-08	2.36E-08	1.26E-08	1.26E-08	1.26E-08	3.49E-09	1.50E-08	-1.54E-08
URI (ΔCDF)	-6.18E-09	-6.18E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.80E-08**	**1.70E-08**	**3.30E-09**	**3.30E-09**	**3.30E-09**	**-5.80E-09**	**5.70E-09**	**-2.50E-08**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

Notes

Mitigating Systems Performance Index, Heat Removal System	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14
UAI (ΔCDF)	-9.20E-08	-9.20E-08	-5.91E-08	-4.31E-08	-4.08E-08	-4.11E-08	4.25E-08	4.24E-08
URI (ΔCDF)	-4.21E-07	-4.12E-07	-3.82E-07	-3.82E-07	-3.82E-07	-3.85E-07	-3.87E-07	-3.92E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.10E-07**	**-5.00E-07**	**-4.40E-07**	**-4.20E-07**	**-4.20E-07**	**-4.30E-07**	**-3.40E-07**	**-3.50E-07**

Licensee Comments:

1Q/13: U1-U2 Train A Cross-tie considered unavailable starting on 10/28/2011 when standing order 11-057 and 1/2BFR H.1 procedure revisions were issued to remove procedural guidance on use of the crosstie modification pending NRC approval. Reference IR#01257908.

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**
UAI (ΔCDF)	9.87E-08	1.86E-07	1.21E-07	5.14E-08	5.14E-08	-2.32E-08	-3.33E-08	9.21E-09
URI (ΔCDF)	-1.31E-07	3.27E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.20E-08**	**5.10E-07**	**3.90E-07**	**3.20E-07**	**3.20E-07**	**2.50E-07**	**2.40E-07**	**2.80E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**2Q/12**	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**
UAI (ΔCDF)	3.76E-07	3.01E-07	1.63E-07	2.66E-07	4.86E-08	4.56E-08	5.74E-08	1.54E-07
URI (ΔCDF)	-3.45E-07	-2.04E-07	-3.78E-08	-3.26E-08	-2.72E-08	-2.16E-08	-1.58E-08	-9.92E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.10E-08**	**9.60E-08**	**1.20E-07**	**2.30E-07**	**2.10E-08**	**2.40E-08**	**4.20E-08**	**1.40E-07**

Licensee Comments:

2Q/13: Changed PRA Parameter(s).

1Q/13: Planned work windows

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

2Q/12: Changed PRA Parameter(s). Byron PRA Model Revision No: 6BB011a approved March 29, 2012, revised Unit 1 and Unit 2 PRA inputs due to a periodic PRA model update. This included new data analysis, new HRA dependency analysis, and new pre-initiator HRA. This update also removed credit for operator action to crosstie AFW. Based on the previous change to the station operating procedures credit for opposite unit DG, CC and SX systems was removed.

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/12**	**5/12**	**6/12**	**7/12**	**8/12**	**9/12**	**10/12**	**11/12**	**12/12**	**1/13**	**2/13**	**3/13**
Maximum activity	0.000532	0.000562	0.000573	0.000595	0.000603	0.000594	0.000220	0.000238	0.000252	0.000265	0.000284	0.000300
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**
Maximum activity	0.000307	0.000335	0.000360	0.000367	0.000392	0.000406	0.000418	0.000436	0.000453	0.000474	0.000504	0.000506
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0.1**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/12**	**5/12**	**6/12**	**7/12**	**8/12**	**9/12**	**10/12**	**11/12**	**12/12**	**1/13**	**2/13**	**3/13**
Maximum leakage	0.060	0.060	0.050	0.050	0.050	0.050	0.060	0.050	0.050	0.060	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.6**	**0.5**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.5**	**0.6**	**0.4**	**0.4**
Reactor Coolant System Leakage	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**
Maximum leakage	0.040	0.040	0.040	0.040	0.040	0.040	0.050	0.040	0.040	0.030	0.040	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**	**0.4**	**0.4**	**0.3**	**0.4**	**0.5**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14
Successful opportunities	126.0	24.0	3.0	104.0	12.0	55.0	32.0	62.0
Total opportunities	126.0	24.0	3.0	104.0	12.0	55.0	32.0	64.0
Indicator value	**98.5%**	**99.0%**	**99.2%**	**99.2%**	**99.4%**	**99.3%**	**99.8%**	**99.5%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14
Participating Key personnel	77.0	78.0	78.0	78.0	76.0	71.0	74.0	77.0
Total Key personnel	77.0	78.0	78.0	78.0	76.0	71.0	74.0	77.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14
Successful siren-tests	3903	3841	3904	3902	3900	3903	3900	3841
Total sirens-tests	3904	3843	3904	3904	3904	3904	3904	3843
Indicator value	**99.9%**	**100.0%**	**100.0%**	**100.0%**	**99.9%**	**100.0%**	**99.9%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/12	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: April 23, 2014

Byron 1

2Q/2014 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1704.0	2050.7	2159.0	2184.0	2208.0	2209.0	1735.7	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	1704.0	2050.7	2159.0	2184.0	2208.0	2209.0	1735.7	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Safety System Functional Failures	0	0	1	0	0	0	0	0
Indicator value	**1**	**1**	**2**	**1**	**1**	**1**	**0**	**0**

Licensee Comments:

1Q/13: LER 454-2012-003-01, Containment Area Radiation Monitors Inoperable for Longer than Allowed By Technical Specifications Due to Inadequate Procedure Controls

3Q/12: LER 2012-001-01 issued for U2 LOOP and Rx Trip and U1 LOOP due to SAT inverted insulators. Determined to NOT be an event or condition that could prevent fulfillment of a safety function.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**
UAI (ΔCDF)	1.65E-08	1.64E-08	7.00E-08	7.50E-08	7.68E-08	3.96E-08	4.04E-09	3.75E-09
URI (ΔCDF)	-2.41E-07	-1.24E-07	-1.09E-07	-2.17E-07	-2.05E-07	-3.26E-07	-3.20E-07	-3.12E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.20E-07**	**-1.10E-07**	**-3.90E-08**	**-1.40E-07**	**-1.30E-07**	**-2.90E-07**	**-3.20E-07**	**-3.10E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**
UAI (ΔCDF)	2.36E-08	1.26E-08	1.26E-08	1.26E-08	3.49E-09	1.50E-08	-1.54E-08	-1.65E-08
URI (ΔCDF)	-6.18E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.70E-08**	**3.30E-09**	**3.30E-09**	**3.30E-09**	**-5.80E-09**	**5.70E-09**	**-2.50E-08**	**-2.60E-08**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**
UAI (ΔCDF)	-9.20E-08	-5.91E-08	-4.31E-08	-4.08E-08	-4.11E-08	4.25E-08	4.24E-08	2.79E-08
URI (ΔCDF)	-4.12E-07	-3.82E-07	-3.82E-07	-3.82E-07	-3.85E-07	-3.87E-07	-3.92E-07	-3.68E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.00E-07**	**-4.40E-07**	**-4.20E-07**	**-4.20E-07**	**-4.30E-07**	**-3.40E-07**	**-3.50E-07**	**-3.40E-07**

Licensee Comments:

1Q/13: U1-U2 Train A Cross-tie considered unavailable starting on 10/28/2011 when standing order 11-057 and 1/2BFR H.1 procedure revisions were issued to remove procedural guidance on use of the crosstie modification pending NRC approval. Reference IR#01257908.

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**
UAI (ΔCDF)	1.86E-07	1.21E-07	5.14E-08	5.14E-08	-2.32E-08	-3.33E-08	9.21E-09	4.44E-08
URI (ΔCDF)	3.27E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**5.10E-07**	**3.90E-07**	**3.20E-07**	**3.20E-07**	**2.50E-07**	**2.40E-07**	**2.80E-07**	**3.10E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**3Q/12**	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**
UAI (ΔCDF)	3.01E-07	1.63E-07	2.66E-07	4.86E-08	4.56E-08	5.74E-08	1.54E-07	9.93E-08
URI (ΔCDF)	-2.04E-07	-3.78E-08	-3.26E-08	-2.72E-08	-2.16E-08	-1.58E-08	-9.92E-09	-3.82E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**9.60E-08**	**1.20E-07**	**2.30E-07**	**2.10E-08**	**2.40E-08**	**4.20E-08**	**1.40E-07**	**9.60E-08**

Licensee Comments:

2Q/13: Changed PRA Parameter(s).

1Q/13: Planned work windows

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

3Q/12: Changed PRA Parameter(s).

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/12**	**8/12**	**9/12**	**10/12**	**11/12**	**12/12**	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**
Maximum activity	0.000595	0.000603	0.000594	0.000220	0.000238	0.000252	0.000265	0.000284	0.000300	0.000307	0.000335	0.000360
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0.1**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**
Maximum activity	0.000367	0.000392	0.000406	0.000418	0.000436	0.000453	0.000474	0.000504	0.000506	0.000168	0.000182	0.000196
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0.1**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13
Maximum leakage	0.050	0.050	0.050	0.060	0.050	0.050	0.060	0.040	0.040	0.040	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.5**	**0.6**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**

Reactor Coolant System Leakage	7/13	8/13	9/13	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14
Maximum leakage	0.040	0.040	0.040	0.050	0.040	0.040	0.030	0.040	0.050	0.060	0.050	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.4**	**0.5**	**0.4**	**0.4**	**0.3**	**0.4**	**0.5**	**0.6**	**0.5**	**0.5**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Successful opportunities	24.0	3.0	104.0	12.0	55.0	32.0	62.0	58.0
Total opportunities	24.0	3.0	104.0	12.0	55.0	32.0	64.0	59.0
Indicator value	**99.0%**	**99.2%**	**99.2%**	**99.4%**	**99.3%**	**99.8%**	**99.5%**	**99.2%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Participating Key personnel	78.0	78.0	78.0	76.0	71.0	74.0	77.0	79.0
Total Key personnel	78.0	78.0	78.0	76.0	71.0	74.0	77.0	79.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
Successful siren-tests	3841	3904	3902	3900	3903	3900	3841	3898
Total sirens-tests	3843	3904	3904	3904	3904	3904	3843	3904
Indicator value	**100.0%**	**100.0%**	**100.0%**	**99.9%**	**100.0%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/12	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: July 31, 2014

Byron 1

3Q/2014 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: BYRON STATION 3Q2014C UNIT 1

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2050.7	2159.0	2184.0	2208.0	2209.0	1735.7	2184.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2050.7	2159.0	2184.0	2208.0	2209.0	1735.7	2184.0	2208.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Safety System Functional Failures	0	1	0	0	0	0	0	0
Indicator value	**1**	**2**	**1**	**1**	**1**	**0**	**0**	**0**

Licensee Comments:

1Q/13: LER 454-2012-003-01, Containment Area Radiation Monitors Inoperable for Longer than Allowed By Technical Specifications Due to Inadequate Procedure Controls

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**
UAI (ΔCDF)	1.64E-08	7.00E-08	7.50E-08	7.68E-08	3.96E-08	4.04E-09	3.75E-09	8.03E-09
URI (ΔCDF)	-1.24E-07	-1.09E-07	-2.17E-07	-2.05E-07	-3.26E-07	-3.20E-07	-3.12E-07	-3.02E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.10E-07**	**-3.90E-08**	**-1.40E-07**	**-1.30E-07**	**-2.90E-07**	**-3.20E-07**	**-3.10E-07**	**-2.90E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
UAI (ΔCDF)	1.26E-08	1.26E-08	1.26E-08	3.49E-09	1.50E-08	-1.54E-08	-1.65E-08	-2.95E-08
URI (ΔCDF)	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.30E-09**	**3.30E-09**	**3.30E-09**	**-5.80E-09**	**5.70E-09**	**-2.50E-08**	**-2.60E-08**	**-3.90E-08**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**4Q/12**	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**
UAI (ΔCDF)	-5.91E-08	-4.31E-08	-4.08E-08	-4.11E-08	4.25E-08	4.24E-08	2.79E-08	3.04E-08
URI (ΔCDF)	-3.82E-07	-3.82E-07	-3.82E-07	-3.85E-07	-3.87E-07	-3.92E-07	-3.68E-07	-3.68E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-4.40E-07**	**-4.20E-07**	**-4.20E-07**	**-4.30E-07**	**-3.40E-07**	**-3.50E-07**	**-3.40E-07**	**-3.40E-07**

Licensee Comments:

1Q/13: U1-U2 Train A Cross-tie considered unavailable starting on 10/28/2011 when standing order 11-057 and 1/2BFR H.1 procedure revisions were issued to remove procedural guidance on use of the crosstie modification pending NRC approval. Reference IR#01257908.

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
UAI (ΔCDF)	1.21E-07	5.14E-08	5.14E-08	-2.32E-08	-3.33E-08	9.21E-09	4.44E-08	-1.19E-08
URI (ΔCDF)	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.90E-07**	**3.20E-07**	**3.20E-07**	**2.50E-07**	**2.40E-07**	**2.80E-07**	**3.10E-07**	**2.60E-07**

Licensee Comments:

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

Notes

Mitigating Systems Performance Index, Cooling Water Systems	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
UAI (ΔCDF)	1.63E-07	2.66E-07	4.86E-08	4.56E-08	5.74E-08	1.54E-07	9.93E-08	9.58E-08
URI (ΔCDF)	-3.78E-08	-3.26E-08	-2.72E-08	-2.16E-08	-1.58E-08	-9.92E-09	-3.82E-09	2.49E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.20E-07**	**2.30E-07**	**2.10E-08**	**2.40E-08**	**4.20E-08**	**1.40E-07**	**9.60E-08**	**9.80E-08**

Licensee Comments:

2Q/13: Changed PRA Parameter(s).

1Q/13: Planned work windows

4Q/12: Changed PRA Parameter(s).

4Q/12: Changed PRA Parameter(s).

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/12**	**11/12**	**12/12**	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**
Maximum activity	0.000220	0.000238	0.000252	0.000265	0.000284	0.000300	0.000307	0.000335	0.000360	0.000367	0.000392	0.000406
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**
Maximum activity	0.000418	0.000436	0.000453	0.000474	0.000504	0.000506	0.000168	0.000182	0.000196	0.000211	0.000224	0.000243
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0.1**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13
Maximum leakage	0.060	0.050	0.050	0.060	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.5**	**0.5**	**0.6**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**

Reactor Coolant System Leakage	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14
Maximum leakage	0.050	0.040	0.040	0.030	0.040	0.050	0.060	0.050	0.050	0.050	0.060	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.5**	**0.4**	**0.4**	**0.3**	**0.4**	**0.5**	**0.6**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Successful opportunities	3.0	104.0	12.0	55.0	32.0	62.0	70.0	90.0
Total opportunities	3.0	104.0	12.0	55.0	32.0	64.0	71.0	92.0
Indicator value	**99.2%**	**99.2%**	**99.4%**	**99.3%**	**99.8%**	**99.5%**	**99.2%**	**98.8%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Participating Key personnel	78.0	78.0	76.0	71.0	74.0	77.0	79.0	78.0
Total Key personnel	78.0	78.0	76.0	71.0	74.0	77.0	79.0	78.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
Successful siren-tests	3904	3902	3900	3903	3900	3841	3898	3896
Total sirens-tests	3904	3904	3904	3904	3904	3843	3904	3904
Indicator value	**100.0%**	**100.0%**	**99.9%**	**100.0%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/12	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: November 3, 2014

Byron 1

4Q/2014 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station Unit 1 4Q2014

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2159.0	2184.0	2208.0	2209.0	1735.7	2184.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2159.0	2184.0	2208.0	2209.0	1735.7	2184.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Safety System Functional Failures	1	0	0	0	0	0	0	0
Indicator value	**2**	**1**	**1**	**1**	**0**	**0**	**0**	**0**

Licensee Comments:

1Q/13: LER 454-2012-003-01, Containment Area Radiation Monitors Inoperable for Longer than Allowed By Technical Specifications Due to Inadequate Procedure Controls

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**
UAI (ΔCDF)	7.00E-08	7.50E-08	7.68E-08	3.96E-08	4.04E-09	3.75E-09	8.03E-09	7.30E-09
URI (ΔCDF)	-1.09E-07	-2.17E-07	-2.05E-07	-3.26E-07	-3.20E-07	-3.12E-07	-3.02E-07	-2.92E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.90E-08**	**-1.40E-07**	**-1.30E-07**	**-2.90E-07**	**-3.20E-07**	**-3.10E-07**	**-2.90E-07**	**-2.80E-07**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**
UAI (ΔCDF)	1.26E-08	1.26E-08	3.49E-09	1.50E-08	-1.54E-08	-1.65E-08	-2.95E-08	-1.38E-08
URI (ΔCDF)	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.30E-09**	**3.30E-09**	**-5.80E-09**	**5.70E-09**	**-2.50E-08**	**-2.60E-08**	**-3.90E-08**	**-2.30E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**
UAI (ΔCDF)	-4.31E-08	-4.08E-08	-4.11E-08	4.25E-08	4.24E-08	2.79E-08	3.04E-08	3.54E-08
URI (ΔCDF)	-3.82E-07	-3.82E-07	-3.85E-07	-3.87E-07	-3.92E-07	-3.68E-07	-3.68E-07	-3.74E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-4.20E-07**	**-4.20E-07**	**-4.30E-07**	**-3.40E-07**	**-3.50E-07**	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**

Licensee Comments:

1Q/13: U1-U2 Train A Cross-tie considered unavailable starting on 10/28/2011 when standing order 11-057 and 1/2BFR H.1 procedure revisions were issued to remove procedural guidance on use of the crosstie modification pending NRC approval. Reference IR#01257908.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI (ΔCDF)	5.14E-08	5.14E-08	-2.32E-08	-3.33E-08	9.21E-09	4.44E-08	-1.19E-08	-1.19E-08
URI (ΔCDF)	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.20E-07**	**3.20E-07**	**2.50E-07**	**2.40E-07**	**2.80E-07**	**3.10E-07**	**2.60E-07**	**2.60E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**1Q/13**	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**
UAI (ΔCDF)	2.66E-07	4.86E-08	4.56E-08	5.74E-08	1.54E-07	9.93E-08	9.58E-08	9.73E-08
URI (ΔCDF)	-3.26E-08	-2.72E-08	-2.16E-08	-1.58E-08	-9.92E-09	-3.82E-09	2.49E-09	8.99E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.30E-07**	**2.10E-08**	**2.40E-08**	**4.20E-08**	**1.40E-07**	**9.60E-08**	**9.80E-08**	**1.10E-07**

Licensee Comments:

2Q/13: Changed PRA Parameter(s).

1Q/13: Planned work windows

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**
Maximum activity	0.000265	0.000284	0.000300	0.000307	0.000335	0.000360	0.000367	0.000392	0.000406	0.000418	0.000436	0.000453
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Reactor Coolant System Activity	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**
Maximum activity	0.000474	0.000504	0.000506	0.000168	0.000182	0.000196	0.000211	0.000224	0.000243	0.000255	0.000262	0.000277
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0.1**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/13**	**2/13**	**3/13**	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**
Maximum leakage	0.060	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.050	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**	**0.4**	**0.4**
Reactor Coolant System Leakage	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**
Maximum leakage	0.030	0.040	0.050	0.060	0.050	0.050	0.050	0.060	0.050	0.040	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.3**	**0.4**	**0.5**	**0.6**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.4**	**0.4**	**0.4**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Successful opportunities	104.0	12.0	55.0	32.0	62.0	70.0	90.0	14.0
Total opportunities	104.0	12.0	55.0	32.0	64.0	71.0	92.0	14.0
Indicator value	**99.2%**	**99.4%**	**99.3%**	**99.8%**	**99.5%**	**99.2%**	**98.8%**	**98.9%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Participating Key personnel	78.0	76.0	71.0	74.0	77.0	79.0	78.0	77.0
Total Key personnel	78.0	76.0	71.0	74.0	77.0	79.0	78.0	77.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Successful siren-tests	3902	3900	3903	3900	3841	3898	3896	3901
Total sirens-tests	3904	3904	3904	3904	3843	3904	3904	3904
Indicator value	**100.0%**	**99.9%**	**100.0%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: February 3, 2015

Byron 1

1Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: 1Q2015 Byron Station

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Unplanned scrams	0	0	0	0	0	0	0	1.0
Critical hours	2184.0	2208.0	2209.0	1735.7	2184.0	2208.0	2209.0	2026.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.8**

Licensee Comments:

1Q/15: UNIT 1 AUTOMATICALLY TRIPPED AS A RESULT OF A WEATHER-RELATED EVENT THAT RESULTED IN A LOSS OF BUS 4. TRANSFORMERS AND BUSHINGS WERE INSPECTED AND REPAIRED.

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2184.0	2208.0	2209.0	1735.7	2184.0	2208.0	2209.0	2026.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**
UAI (ΔCDF)	7.50E-08	7.68E-08	3.96E-08	4.04E-09	3.75E-09	8.03E-09	7.30E-09	6.26E-08
URI (ΔCDF)	-2.17E-07	-2.05E-07	-3.26E-07	-3.20E-07	-3.12E-07	-3.02E-07	-2.92E-07	-2.71E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.40E-07**	**-1.30E-07**	**-2.90E-07**	**-3.20E-07**	**-3.10E-07**	**-2.90E-07**	**-2.80E-07**	**-2.10E-07**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**
UAI (ΔCDF)	1.26E-08	3.49E-09	1.50E-08	-1.54E-08	-1.65E-08	-2.95E-08	-1.38E-08	-1.89E-08
URI (ΔCDF)	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.21E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.30E-09**	**-5.80E-09**	**5.70E-09**	**-2.50E-08**	**-2.60E-08**	**-3.90E-08**	**-2.30E-08**	**-2.80E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**
UAI (ΔCDF)	-4.08E-08	-4.11E-08	4.25E-08	4.24E-08	2.79E-08	3.04E-08	3.54E-08	3.66E-08
URI (ΔCDF)	-3.82E-07	-3.85E-07	-3.87E-07	-3.92E-07	-3.68E-07	-3.68E-07	-3.74E-07	-3.74E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-4.20E-07**	**-4.30E-07**	**-3.40E-07**	**-3.50E-07**	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
UAI (ΔCDF)	5.14E-08	-2.32E-08	-3.33E-08	9.21E-09	4.44E-08	-1.19E-08	-1.19E-08	-1.11E-08
URI (ΔCDF)	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.20E-07**	**2.50E-07**	**2.40E-07**	**2.80E-07**	**3.10E-07**	**2.60E-07**	**2.60E-07**	**2.60E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**2Q/13**	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**
UAI (ΔCDF)	4.86E-08	4.56E-08	5.74E-08	1.54E-07	9.93E-08	9.58E-08	9.73E-08	2.27E-07
URI (ΔCDF)	-2.72E-08	-2.16E-08	-1.58E-08	-9.92E-09	-3.82E-09	2.49E-09	8.99E-09	1.69E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.10E-08**	**2.40E-08**	**4.20E-08**	**1.40E-07**	**9.60E-08**	**9.80E-08**	**1.10E-07**	**2.40E-07**

Licensee Comments:

2Q/13: Changed PRA Parameter(s).

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**
Maximum activity	0.000307	0.000335	0.000360	0.000367	0.000392	0.000406	0.000418	0.000436	0.000453	0.000474	0.000504	0.000506
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0.1**
Reactor Coolant System Activity	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**
Maximum activity	0.000168	0.000182	0.000196	0.000211	0.000224	0.000243	0.000255	0.000262	0.000277	0.000296	0.000305	0.000308
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/13**	**5/13**	**6/13**	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**
Maximum leakage	0.040	0.040	0.040	0.040	0.040	0.040	0.050	0.040	0.040	0.030	0.040	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**	**0.4**	**0.4**	**0.3**	**0.4**	**0.5**
Reactor Coolant System Leakage	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**
Maximum leakage	0.060	0.050	0.050	0.050	0.060	0.050	0.040	0.040	0.040	0.040	0.040	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Successful opportunities	12.0	55.0	32.0	62.0	70.0	90.0	14.0	74.0
Total opportunities	12.0	55.0	32.0	64.0	71.0	92.0	14.0	74.0
Indicator value	**99.4%**	**99.3%**	**99.8%**	**99.5%**	**99.2%**	**98.8%**	**98.9%**	**98.8%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Participating Key personnel	76.0	71.0	74.0	77.0	79.0	78.0	77.0	74.0
Total Key personnel	76.0	71.0	74.0	77.0	79.0	78.0	77.0	74.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
Successful siren-tests	3900	3903	3900	3841	3898	3896	3901	3834
Total sirens-tests	3904	3904	3904	3843	3904	3904	3904	3840
Indicator value	**99.9%**	**100.0%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: April 23, 2015

Byron 1

2Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Unit 1 2Q2015

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Unplanned scrams	0	0	0	0	0	0	1.0	0
Critical hours	2208.0	2209.0	1735.7	2184.0	2208.0	2209.0	2026.0	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0.8**	**0.8**

Licensee Comments:

1Q/15: UNIT 1 AUTOMATICALLY TRIPPED AS A RESULT OF A WEATHER-RELATED EVENT THAT RESULTED IN A LOSS OF BUS 4. TRANSFORMERS AND BUSHINGS WERE INSPECTED AND REPAIRED.

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2208.0	2209.0	1735.7	2184.0	2208.0	2209.0	2026.0	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**
UAI (ΔCDF)	7.68E-08	3.96E-08	4.04E-09	3.75E-09	8.03E-09	7.30E-09	6.26E-08	6.26E-08
URI (ΔCDF)	-2.05E-07	-3.26E-07	-3.20E-07	-3.12E-07	-3.02E-07	-2.92E-07	-2.71E-07	-2.71E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.30E-07**	**-2.90E-07**	**-3.20E-07**	**-3.10E-07**	**-2.90E-07**	**-2.80E-07**	**-2.10E-07**	**-2.10E-07**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**
UAI (ΔCDF)	3.49E-09	1.50E-08	-1.54E-08	-1.65E-08	-2.95E-08	-1.38E-08	-1.89E-08	-1.89E-08
URI (ΔCDF)	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.21E-09	-9.21E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.80E-09**	**5.70E-09**	**-2.50E-08**	**-2.60E-08**	**-3.90E-08**	**-2.30E-08**	**-2.80E-08**	**-2.80E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**
UAI (ΔCDF)	-4.11E-08	4.25E-08	4.24E-08	2.79E-08	3.04E-08	3.54E-08	3.66E-08	1.49E-07
URI (ΔCDF)	-3.85E-07	-3.87E-07	-3.92E-07	-3.68E-07	-3.68E-07	-3.74E-07	-3.74E-07	1.07E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-4.30E-07**	**-3.40E-07**	**-3.50E-07**	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**	**2.60E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**
UAI (ΔCDF)	-2.32E-08	-3.33E-08	9.21E-09	4.44E-08	-1.19E-08	-1.19E-08	-1.11E-08	4.34E-08
URI (ΔCDF)	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.50E-07**	**2.40E-07**	**2.80E-07**	**3.10E-07**	**2.60E-07**	**2.60E-07**	**2.60E-07**	**3.10E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**3Q/13**	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**
UAI (ΔCDF)	4.56E-08	5.74E-08	1.54E-07	9.93E-08	9.58E-08	9.73E-08	2.27E-07	1.86E-07
URI (ΔCDF)	-2.16E-08	-1.58E-08	-9.92E-09	-3.82E-09	2.49E-09	8.99E-09	1.69E-08	1.69E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.40E-08**	**4.20E-08**	**1.40E-07**	**9.60E-08**	**9.80E-08**	**1.10E-07**	**2.40E-07**	**2.00E-07**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**
Maximum activity	0.000367	0.000392	0.000406	0.000418	0.000436	0.000453	0.000474	0.000504	0.000506	0.000168	0.000182	0.000196
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0.1**	**0**	**0**	**0**

Reactor Coolant System Activity	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**
Maximum activity	0.000211	0.000224	0.000243	0.000255	0.000262	0.000277	0.000296	0.000305	0.000308	0.000333	0.000343	0.000369
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**7/13**	**8/13**	**9/13**	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**
Maximum leakage	0.040	0.040	0.040	0.050	0.040	0.040	0.030	0.040	0.050	0.060	0.050	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.4**	**0.5**	**0.4**	**0.4**	**0.3**	**0.4**	**0.5**	**0.6**	**0.5**	**0.5**
Reactor Coolant System Leakage	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**
Maximum leakage	0.050	0.060	0.050	0.040	0.040	0.040	0.040	0.040	0.050	0.047	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.5**	**0.6**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**	**0.5**	**0.4**	**0.4**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Successful opportunities	55.0	32.0	62.0	70.0	90.0	14.0	74.0	41.0
Total opportunities	55.0	32.0	64.0	71.0	92.0	14.0	74.0	43.0
Indicator value	**99.3%**	**99.8%**	**99.5%**	**99.2%**	**98.8%**	**98.9%**	**98.8%**	**98.4%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Participating Key personnel	71.0	74.0	77.0	79.0	78.0	77.0	74.0	74.0
Total Key personnel	71.0	74.0	77.0	79.0	78.0	77.0	74.0	74.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
Successful siren-tests	3903	3900	3841	3898	3896	3901	3834	3902
Total sirens-tests	3904	3904	3843	3904	3904	3904	3840	3904
Indicator value	**100.0%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: July 24, 2015

Byron 1

3Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station Unit 1 3Q2015

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Unplanned scrams	0	0	0	0	0	1.0	0	0
Critical hours	2209.0	1735.7	2184.0	2208.0	2209.0	2026.0	2184.0	1800.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0.8**	**0.8**	**0.9**

Licensee Comments:

1Q/15: UNIT 1 AUTOMATICALLY TRIPPED AS A RESULT OF A WEATHER-RELATED EVENT THAT RESULTED IN A LOSS OF BUS 4. TRANSFORMERS AND BUSHINGS WERE INSPECTED AND REPAIRED.

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2209.0	1735.7	2184.0	2208.0	2209.0	2026.0	2184.0	1800.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**
UAI (ΔCDF)	3.96E-08	4.04E-09	3.75E-09	8.03E-09	7.30E-09	6.26E-08	6.26E-08	6.20E-08
URI (ΔCDF)	-3.26E-07	-3.20E-07	-3.12E-07	-3.02E-07	-2.92E-07	-2.71E-07	-2.71E-07	-2.71E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.90E-07**	**-3.20E-07**	**-3.10E-07**	**-2.90E-07**	**-2.80E-07**	**-2.10E-07**	**-2.10E-07**	**-2.10E-07**

Licensee Comments: none

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**
UAI (ΔCDF)	1.50E-08	-1.54E-08	-1.65E-08	-2.95E-08	-1.38E-08	-1.89E-08	-1.89E-08	-1.41E-08
URI (ΔCDF)	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.21E-09	-9.21E-09	-9.21E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**5.70E-09**	**-2.50E-08**	**-2.60E-08**	**-3.90E-08**	**-2.30E-08**	**-2.80E-08**	**-2.80E-08**	**-2.30E-08**

Licensee Comments: none

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
UAI (ΔCDF)	4.25E-08	4.24E-08	2.79E-08	3.04E-08	3.54E-08	3.66E-08	1.49E-07	2.24E-07
URI (ΔCDF)	-3.87E-07	-3.92E-07	-3.68E-07	-3.68E-07	-3.74E-07	-3.74E-07	1.07E-07	8.13E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.40E-07**	**-3.50E-07**	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**	**2.60E-07**	**3.10E-07**

Licensee Comments: none

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**
UAI (ΔCDF)	-3.33E-08	9.21E-09	4.44E-08	-1.19E-08	-1.19E-08	-1.11E-08	4.34E-08	4.18E-08
URI (ΔCDF)	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	-1.08E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.40E-07**	**2.80E-07**	**3.10E-07**	**2.60E-07**	**2.60E-07**	**2.60E-07**	**3.10E-07**	**-6.60E-08**

Licensee Comments: none

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**4Q/13**	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**
UAI (ΔCDF)	5.74E-08	1.54E-07	9.93E-08	9.58E-08	9.73E-08	2.27E-07	1.86E-07	1.85E-07
URI (ΔCDF)	-1.58E-08	-9.92E-09	-3.82E-09	2.49E-09	8.99E-09	1.69E-08	1.69E-08	-9.41E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**4.20E-08**	**1.40E-07**	**9.60E-08**	**9.80E-08**	**1.10E-07**	**2.40E-07**	**2.00E-07**	**9.10E-08**

Licensee Comments: none

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/13**	**11/13**	**12/13**	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**
Maximum activity	0.000418	0.000436	0.000453	0.000474	0.000504	0.000506	0.000168	0.000182	0.000196	0.000211	0.000224	0.000243
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0.1**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**	**7/15**	**8/15**	**9/15**
Maximum activity	0.000255	0.000262	0.000277	0.000296	0.000305	0.000308	0.000333	0.000343	0.000369	0.000500	0.000389	0.000383
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/13	11/13	12/13	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14
Maximum leakage	0.050	0.040	0.040	0.030	0.040	0.050	0.060	0.050	0.050	0.050	0.060	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.5**	**0.4**	**0.4**	**0.3**	**0.4**	**0.5**	**0.6**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**
Reactor Coolant System Leakage	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**	**7/15**	**8/15**	**9/15**
Maximum leakage	0.040	0.040	0.040	0.040	0.040	0.050	0.047	0.040	0.040	0.040	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Successful opportunities	32.0	62.0	70.0	90.0	14.0	74.0	41.0	27.0
Total opportunities	32.0	64.0	71.0	92.0	14.0	74.0	43.0	27.0
Indicator value	**99.8%**	**99.5%**	**99.2%**	**98.8%**	**98.9%**	**98.8%**	**98.4%**	**98.3%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Participating Key personnel	74.0	77.0	79.0	78.0	77.0	74.0	74.0	72.0
Total Key personnel	74.0	77.0	79.0	78.0	77.0	74.0	74.0	72.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
Successful siren-tests	3900	3841	3898	3896	3901	3834	3902	3962
Total sirens-tests	3904	3843	3904	3904	3904	3840	3904	3965
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: December 15, 2015

Byron 1

4Q/2015 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Unit 1 Change file PRA changes

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Unplanned scrams	0	0	0	0	1.0	0	0	0
Critical hours	1735.7	2184.0	2208.0	2209.0	2026.0	2184.0	1800.0	2184.2
Indicator value	**0**	**0**	**0**	**0**	**0.8**	**0.8**	**0.9**	**0.9**

Licensee Comments:

1Q/15: UNIT 1 AUTOMATICALLY TRIPPED AS A RESULT OF A WEATHER-RELATED EVENT THAT RESULTED IN A LOSS OF BUS 4. TRANSFORMERS AND BUSHINGS WERE INSPECTED AND REPAIRED.

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	1735.7	2184.0	2208.0	2209.0	2026.0	2184.0	1800.0	2184.2
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Safety System Functional Failures	0	0	0	0	0	0	0	1
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Licensee Comments:

4Q/15: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**
UAI (ΔCDF)	4.04E-09	3.75E-09	8.03E-09	7.30E-09	6.26E-08	6.26E-08	6.20E-08	5.03E-08
URI (ΔCDF)	-3.20E-07	-3.12E-07	-3.02E-07	-2.92E-07	-2.71E-07	-2.71E-07	-2.71E-07	-1.84E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.20E-07**	**-3.10E-07**	**-2.90E-07**	**-2.80E-07**	**-2.10E-07**	**-2.10E-07**	**-2.10E-07**	**-1.30E-07**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**
UAI (ΔCDF)	-1.54E-08	-1.65E-08	-2.95E-08	-1.38E-08	-1.89E-08	-1.89E-08	-1.41E-08	-1.25E-08
URI (ΔCDF)	-9.27E-09	-9.27E-09	-9.27E-09	-9.27E-09	-9.21E-09	-9.21E-09	-9.21E-09	-6.37E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.50E-08**	**-2.60E-08**	**-3.90E-08**	**-2.30E-08**	**-2.80E-08**	**-2.80E-08**	**-2.30E-08**	**-1.90E-08**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**
UAI (ΔCDF)	4.24E-08	2.79E-08	3.04E-08	3.54E-08	3.66E-08	1.49E-07	2.24E-07	1.75E-07
URI (ΔCDF)	-3.92E-07	-3.68E-07	-3.68E-07	-3.74E-07	-3.74E-07	1.07E-07	8.13E-08	9.22E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.50E-07**	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**	**2.60E-07**	**3.10E-07**	**2.70E-07**

Licensee Comments:

4Q/15: Risk Cap Invoked. Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**
UAI (ΔCDF)	9.21E-09	4.44E-08	-1.19E-08	-1.19E-08	-1.11E-08	4.34E-08	4.18E-08	-2.39E-08
URI (ΔCDF)	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	-1.08E-07	-7.64E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.80E-07**	**3.10E-07**	**2.60E-07**	**2.60E-07**	**2.60E-07**	**3.10E-07**	**-6.60E-08**	**-1.00E-07**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**1Q/14**	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**
UAI (ΔCDF)	1.54E-07	9.93E-08	9.58E-08	9.73E-08	2.27E-07	1.86E-07	1.85E-07	4.78E-08
URI (ΔCDF)	-9.91E-09	-3.80E-09	2.50E-09	9.01E-09	1.69E-08	1.69E-08	-9.41E-08	-5.50E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.40E-07**	**9.60E-08**	**9.80E-08**	**1.10E-07**	**2.40E-07**	**2.00E-07**	**9.10E-08**	**-7.20E-09**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**
Maximum activity	0.000474	0.000504	0.000506	0.000168	0.000182	0.000196	0.000211	0.000224	0.000243	0.000255	0.000262	0.000277
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0.1**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Reactor Coolant System Activity	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**	**7/15**	**8/15**	**9/15**	**10/15**	**11/15**	**12/15**
Maximum activity	0.000296	0.000305	0.000308	0.000333	0.000343	0.000369	0.000500	0.000389	0.000383	0.000154	0.000156	0.000168
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/14**	**2/14**	**3/14**	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**
Maximum leakage	0.030	0.040	0.050	0.060	0.050	0.050	0.050	0.060	0.050	0.040	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.3**	**0.4**	**0.5**	**0.6**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.4**	**0.4**	**0.4**
Reactor Coolant System Leakage	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**	**7/15**	**8/15**	**9/15**	**10/15**	**11/15**	**12/15**
Maximum leakage	0.040	0.040	0.050	0.047	0.040	0.040	0.040	0.040	0.040	0.090	0.100	0.110
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.9**	**1.0**	**1.1**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Successful opportunities	62.0	70.0	90.0	14.0	74.0	41.0	27.0	32.0
Total opportunities	64.0	71.0	92.0	14.0	74.0	43.0	27.0	32.0
Indicator value	**99.5%**	**99.2%**	**98.8%**	**98.9%**	**98.8%**	**98.4%**	**98.3%**	**98.3%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Participating Key personnel	77.0	79.0	78.0	77.0	74.0	74.0	72.0	75.0
Total Key personnel	77.0	79.0	78.0	77.0	74.0	74.0	72.0	75.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
Successful siren-tests	3841	3898	3896	3901	3834	3902	3962	3903
Total sirens-tests	3843	3904	3904	3904	3840	3904	3965	3904
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/14	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: March 1, 2016

Byron 1

1Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron 1Q2016 Unit 1

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Unplanned scrams	0	0	0	1.0	0	0	0	0
Critical hours	2184.0	2208.0	2209.0	2026.0	2184.0	1800.0	2184.2	2183.0
Indicator value	**0**	**0**	**0**	**0.8**	**0.8**	**0.9**	**0.9**	**0**

Licensee Comments:

1Q/15: UNIT 1 AUTOMATICALLY TRIPPED AS A RESULT OF A WEATHER-RELATED EVENT THAT RESULTED IN A LOSS OF BUS 4. TRANSFORMERS AND BUSHINGS WERE INSPECTED AND REPAIRED.

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Unplanned power changes	0	0	0	0	0	0	0	1.0
Critical hours	2184.0	2208.0	2209.0	2026.0	2184.0	1800.0	2184.2	2183.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.8**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Safety System Functional Failures	0	0	0	0	0	0	1	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**

Licensee Comments:

4Q/15: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**
UAI (ΔCDF)	3.75E-09	8.03E-09	7.30E-09	6.26E-08	6.26E-08	6.20E-08	5.03E-08	1.15E-08
URI (ΔCDF)	-3.12E-07	-3.02E-07	-2.92E-07	-2.71E-07	-2.71E-07	-2.71E-07	-1.84E-07	-1.84E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.10E-07**	**-2.90E-07**	**-2.80E-07**	**-2.10E-07**	**-2.10E-07**	**-2.10E-07**	**-1.30E-07**	**-1.70E-07**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**
UAI (ΔCDF)	-1.65E-08	-2.95E-08	-1.38E-08	-1.89E-08	-1.89E-08	-1.41E-08	-1.25E-08	1.10E-09
URI (ΔCDF)	-9.27E-09	-9.27E-09	-9.27E-09	-9.21E-09	-9.21E-09	-9.21E-09	-6.37E-09	-6.37E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.60E-08**	**-3.90E-08**	**-2.30E-08**	**-2.80E-08**	**-2.80E-08**	**-2.30E-08**	**-1.90E-08**	**-5.30E-09**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**
UAI (ΔCDF)	2.79E-08	3.04E-08	3.54E-08	3.66E-08	1.49E-07	2.24E-07	1.75E-07	2.18E-07
URI (ΔCDF)	-3.68E-07	-3.68E-07	-3.74E-07	-3.74E-07	1.07E-07	8.13E-08	9.22E-08	8.68E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**	**2.60E-07**	**3.10E-07**	**2.70E-07**	**3.00E-07**

Licensee Comments:

1Q/16: Risk Cap Invoked.

4Q/15: Risk Cap Invoked. Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
UAI (ΔCDF)	4.44E-08	-1.19E-08	-1.19E-08	-1.11E-08	4.34E-08	4.18E-08	-2.39E-08	-2.39E-08
URI (ΔCDF)	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	-1.08E-07	-7.64E-08	-7.64E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.10E-07**	**2.60E-07**	**2.60E-07**	**2.60E-07**	**3.10E-07**	**-6.60E-08**	**-1.00E-07**	**-1.00E-07**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**2Q/14**	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**
UAI (ΔCDF)	9.93E-08	9.58E-08	9.73E-08	2.27E-07	1.86E-07	1.85E-07	4.78E-08	3.74E-08
URI (ΔCDF)	-3.80E-09	2.50E-09	9.01E-09	1.69E-08	1.69E-08	-9.41E-08	-5.50E-08	-5.50E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**9.60E-08**	**9.80E-08**	**1.10E-07**	**2.40E-07**	**2.00E-07**	**9.10E-08**	**-7.20E-09**	**-1.80E-08**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**
Maximum activity	0.000168	0.000182	0.000196	0.000211	0.000224	0.000243	0.000255	0.000262	0.000277	0.000296	0.000305	0.000308
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	**4/15**	**5/15**	**6/15**	**7/15**	**8/15**	**9/15**	**10/15**	**11/15**	**12/15**	**1/16**	**2/16**	**3/16**
Maximum activity	0.000333	0.000343	0.000369	0.000500	0.000389	0.000383	0.000154	0.000156	0.000168	0.000173	0.000267	0.000191
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**4/14**	**5/14**	**6/14**	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**
Maximum leakage	0.060	0.050	0.050	0.050	0.060	0.050	0.040	0.040	0.040	0.040	0.040	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.6**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**
Reactor Coolant System Leakage	**4/15**	**5/15**	**6/15**	**7/15**	**8/15**	**9/15**	**10/15**	**11/15**	**12/15**	**1/16**	**2/16**	**3/16**
Maximum leakage	0.047	0.040	0.040	0.040	0.040	0.040	0.090	0.100	0.110	0.130	0.140	0.130
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.9**	**1.0**	**1.1**	**1.3**	**1.4**	**1.3**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Successful opportunities	70.0	90.0	14.0	74.0	41.0	27.0	32.0	106.0
Total opportunities	71.0	92.0	14.0	74.0	43.0	27.0	32.0	109.0
Indicator value	**99.2%**	**98.8%**	**98.9%**	**98.8%**	**98.4%**	**98.3%**	**98.3%**	**98.3%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Participating Key personnel	79.0	78.0	77.0	74.0	74.0	72.0	75.0	76.0
Total Key personnel	79.0	78.0	77.0	74.0	74.0	72.0	75.0	76.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
Successful siren-tests	3898	3896	3901	3834	3902	3962	3903	3897
Total sirens-tests	3904	3904	3904	3840	3904	3965	3904	3904
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	2Q/14	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: April 23, 2016

Byron 1

2Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: 2Q2016 Byron Station

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Unplanned scrams	0	0	1.0	0	0	0	0	0
Critical hours	2208.0	2209.0	2026.0	2184.0	1800.0	2184.2	2183.0	2184.0
Indicator value	**0**	**0**	**0.8**	**0.8**	**0.9**	**0.9**	**0**	**0**

Licensee Comments:

1Q/15: UNIT 1 AUTOMATICALLY TRIPPED AS A RESULT OF A WEATHER-RELATED EVENT THAT RESULTED IN A LOSS OF BUS 4. TRANSFORMERS AND BUSHINGS WERE INSPECTED AND REPAIRED.

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Unplanned power changes	0	0	0	0	0	0	1.0	0
Critical hours	2208.0	2209.0	2026.0	2184.0	1800.0	2184.2	2183.0	2184.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0.8**	**0.8**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Safety System Functional Failures	0	0	0	0	0	1	0	1
Indicator value	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**2**

Licensee Comments:

4Q/15: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**
UAI (ΔCDF)	8.03E-09	7.30E-09	6.26E-08	6.26E-08	6.20E-08	5.03E-08	1.15E-08	8.38E-09
URI (ΔCDF)	-3.02E-07	-2.92E-07	-2.71E-07	-2.71E-07	-2.71E-07	-1.84E-07	-1.84E-07	-1.84E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.90E-07**	**-2.80E-07**	**-2.10E-07**	**-2.10E-07**	**-2.10E-07**	**-1.30E-07**	**-1.70E-07**	**-1.80E-07**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**
UAI (ΔCDF)	-2.95E-08	-1.38E-08	-1.89E-08	-1.89E-08	-1.41E-08	-1.25E-08	1.10E-09	4.03E-08
URI (ΔCDF)	-9.27E-09	-9.27E-09	-9.21E-09	-9.21E-09	-9.21E-09	-6.37E-09	-6.37E-09	-6.37E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.90E-08**	**-2.30E-08**	**-2.80E-08**	**-2.80E-08**	**-2.30E-08**	**-1.90E-08**	**-5.30E-09**	**3.40E-08**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**
UAI (ΔCDF)	3.04E-08	3.54E-08	3.66E-08	1.49E-07	2.24E-07	1.75E-07	2.18E-07	1.88E-07
URI (ΔCDF)	-3.68E-07	-3.74E-07	-3.74E-07	1.07E-07	8.13E-08	9.22E-08	8.68E-08	8.69E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.40E-07**	**-3.40E-07**	**-3.40E-07**	**2.60E-07**	**3.10E-07**	**2.70E-07**	**3.00E-07**	**2.70E-07**

Licensee Comments:

2Q/16: Risk Cap Invoked.

1Q/16: Risk Cap Invoked.

4Q/15: Risk Cap Invoked. Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**3Q/14**	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**
UAI (ΔCDF)	-1.19E-08	-1.19E-08	-1.11E-08	4.34E-08	4.18E-08	-2.39E-08	-2.39E-08	-2.39E-08
URI (ΔCDF)	2.69E-07	2.69E-07	2.69E-07	2.69E-07	-1.08E-07	-7.64E-08	-7.64E-08	-7.64E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.60E-07**	**2.60E-07**	**2.60E-07**	**3.10E-07**	**-6.60E-08**	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
UAI (ΔCDF)	9.58E-08	9.73E-08	2.27E-07	1.86E-07	1.85E-07	4.78E-08	3.74E-08	2.63E-08
URI (ΔCDF)	2.50E-09	9.01E-09	1.69E-08	1.69E-08	-9.41E-08	-5.50E-08	-5.50E-08	-5.50E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**9.80E-08**	**1.10E-07**	**2.40E-07**	**2.00E-07**	**9.10E-08**	**-7.20E-09**	**-1.80E-08**	**-2.90E-08**

Licensee Comments:

4Q/15: Changed PRA Parameter(s).

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**7/14**	**8/14**	**9/14**	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**
Maximum activity	0.000211	0.000224	0.000243	0.000255	0.000262	0.000277	0.000296	0.000305	0.000308	0.000333	0.000343	0.000369
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Reactor Coolant System Activity	**7/15**	**8/15**	**9/15**	**10/15**	**11/15**	**12/15**	**1/16**	**2/16**	**3/16**	**4/16**	**5/16**	**6/16**
Maximum activity	0.000500	0.000389	0.000383	0.000154	0.000156	0.000168	0.000173	0.000267	0.000191	0.000204	0.000214	0.000220
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	7/14	8/14	9/14	10/14	11/14	12/14	1/15	2/15	3/15	4/15	5/15	6/15
Maximum leakage	0.050	0.060	0.050	0.040	0.040	0.040	0.040	0.040	0.050	0.047	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.5**	**0.6**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**	**0.5**	**0.4**	**0.4**
Reactor Coolant System Leakage	**7/15**	**8/15**	**9/15**	**10/15**	**11/15**	**12/15**	**1/16**	**2/16**	**3/16**	**4/16**	**5/16**	**6/16**
Maximum leakage	0.040	0.040	0.040	0.090	0.100	0.110	0.130	0.140	0.130	0.110	0.100	0.080
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.4**	**0.9**	**1.0**	**1.1**	**1.3**	**1.4**	**1.3**	**1.1**	**1.0**	**0.8**

Licensee Comments: none

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Successful opportunities	90.0	14.0	74.0	41.0	27.0	32.0	106.0	44.0
Total opportunities	92.0	14.0	74.0	43.0	27.0	32.0	109.0	44.0
Indicator value	**98.8%**	**98.9%**	**98.8%**	**98.4%**	**98.3%**	**98.3%**	**98.3%**	**98.4%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Participating Key personnel	78.0	77.0	74.0	74.0	72.0	75.0	76.0	78.0
Total Key personnel	78.0	77.0	74.0	74.0	72.0	75.0	76.0	78.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
Successful siren-tests	3896	3901	3834	3902	3962	3903	3897	3902
Total sirens-tests	3904	3904	3840	3904	3965	3904	3904	3904
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Occupational Exposure Control Effectiveness

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/14	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: July 25, 2016

Byron 1

3Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station 3Q2016 Unit 1

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Unplanned scrams	0	1.0	0	0	0	0	0	0
Critical hours	2209.0	2026.0	2184.0	1800.0	2184.2	2183.0	2184.0	2208.0
Indicator value	**0**	**0.8**	**0.8**	**0.9**	**0.9**	**0**	**0**	**0**

Licensee Comments:

1Q/15: UNIT 1 AUTOMATICALLY TRIPPED AS A RESULT OF A WEATHER-RELATED EVENT THAT RESULTED IN A LOSS OF BUS 4. TRANSFORMERS AND BUSHINGS WERE INSPECTED AND REPAIRED.

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Unplanned power changes	1.0	0	0	0	0	1.0	0	0
Critical hours	2209.0	2026.0	2184.0	1800.0	2184.2	2183.0	2184.0	2208.0
Indicator value	**0.8**	**0.8**	**0.8**	**0.9**	**0**	**0.8**	**0.8**	**0.8**

Licensee Comments:

4Q/14: On 12/29/14, a broken insulator piece was discovered under 345kv Bus 6 by one of the civil workers walking out to their equipment. The construction manager for the Grand Prairie project walked down the area with the worker and then notified OAD of the insulator chip. The chip had broken off one of the Bus 6 support insulators (north phase, top petticoat, second stack, on the east-west section of bus 6). Replacement of the SAT 142 support insulator REF IR 02430376 2/2/15-IR-02441512-Byron management documented their position for classifying the event as Planned Energy Loss based on TSO's direction NOT to wait > 10 days to perform the repairs. The STPE (with concurrence of the CTPE) did not agree with classifying the event as Planned Energy Loss based on the documentation provided by Byron Management. After further review the power changes was determined to be planned PWR Changes. REF IRs 02430376 & 02441512.

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Safety System Functional Failures	0	0	0	0	1	0	1	1
Indicator value	**0**	**0**	**0**	**0**	**1**	**1**	**2**	**3**

Licensee Comments:

3Q/16: LER 2016-001-00, May 2016 AF Diesel Intake Design Deficiency Due to High Energy Line Break (HELB) Concerns. LER 2016-002-00 was issued 7/21/16, for Inadequate protection from Tornado Missiles Due to Non-conforming Design Conditions. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

2Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted. May 2016 - LER 2016-001-00 IR2636112 ICES#322087

1Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

4Q/15: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**	**3Q/16**
UAI (ΔCDF)	7.30E-09	6.26E-08	6.26E-08	6.20E-08	5.03E-08	1.15E-08	8.38E-09	7.31E-09
URI (ΔCDF)	-2.92E-07	-2.71E-07	-2.71E-07	-2.71E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.84E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.80E-07**	**-2.10E-07**	**-2.10E-07**	**-2.10E-07**	**-1.30E-07**	**-1.70E-07**	**-1.80E-07**	**-1.80E-07**

Licensee Comments:

3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**	**3Q/16**
UAI (ΔCDF)	-1.38E-08	-1.89E-08	-1.89E-08	-1.41E-08	-1.25E-08	1.10E-09	4.03E-08	5.24E-08
URI (ΔCDF)	-9.27E-09	-9.21E-09	-9.21E-09	-9.21E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.30E-08**	**-2.80E-08**	**-2.80E-08**	**-2.30E-08**	**-1.90E-08**	**-5.30E-09**	**3.40E-08**	**4.60E-08**

Licensee Comments:

3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: Changed PRA Parameter(s).

Notes

Mitigating Systems Performance Index, Heat Removal System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
UAI (ΔCDF)	3.54E-08	3.66E-08	1.49E-07	2.24E-07	1.75E-07	2.18E-07	1.88E-07	1.85E-07
URI (ΔCDF)	-3.74E-07	-3.74E-07	1.07E-07	8.13E-08	9.22E-08	8.68E-08	8.69E-08	8.67E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.40E-07**	**-3.40E-07**	**2.60E-07**	**3.10E-07**	**2.70E-07**	**3.00E-07**	**2.70E-07**	**2.70E-07**

Licensee Comments:

3Q/16: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

2Q/16: Risk Cap Invoked.

1Q/16: Risk Cap Invoked.

4Q/15: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: Risk Cap Invoked. Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**	**3Q/16**
UAI (ΔCDF)	-1.19E-08	-1.11E-08	4.34E-08	4.18E-08	-2.39E-08	-2.39E-08	-2.39E-08	2.87E-08
URI (ΔCDF)	2.69E-07	2.69E-07	2.69E-07	-1.08E-07	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.60E-07**	**2.60E-07**	**3.10E-07**	**-6.60E-08**	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**	**-4.80E-08**

Licensee Comments:

3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: Changed PRA Parameter(s).

Notes

Mitigating Systems Performance Index, Cooling Water Systems	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
UAI (ΔCDF)	9.73E-08	2.27E-07	1.86E-07	1.85E-07	4.78E-08	3.74E-08	2.63E-08	1.99E-08
URI (ΔCDF)	9.01E-09	1.69E-08	1.69E-08	-9.41E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**1.10E-07**	**2.40E-07**	**2.00E-07**	**9.10E-08**	**-7.20E-09**	**-1.80E-08**	**-2.90E-08**	**-3.50E-08**

Licensee Comments:

3Q/16: Changed PRA Parameter(s). 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17

was approved in January 2016.

4Q/15: Changed PRA Parameter(s).

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**	**7/15**	**8/15**	**9/15**
Maximum activity	0.000255	0.000262	0.000277	0.000296	0.000305	0.000308	0.000333	0.000343	0.000369	0.000500	0.000389	0.000383
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**
Reactor Coolant System Activity	**10/15**	**11/15**	**12/15**	**1/16**	**2/16**	**3/16**	**4/16**	**5/16**	**6/16**	**7/16**	**8/16**	**9/16**
Maximum activity	0.000154	0.000156	0.000168	0.000173	0.000267	0.000191	0.000204	0.000214	0.000220	0.000234	0.000250	0.000249
Technical												

specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments:

9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**10/14**	**11/14**	**12/14**	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**	**7/15**	**8/15**	**9/15**
Maximum leakage	0.040	0.040	0.040	0.040	0.040	0.050	0.047	0.040	0.040	0.040	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**
Reactor Coolant System Leakage	**10/15**	**11/15**	**12/15**	**1/16**	**2/16**	**3/16**	**4/16**	**5/16**	**6/16**	**7/16**	**8/16**	**9/16**
Maximum leakage	0.090	0.100	0.110	0.130	0.140	0.130	0.110	0.100	0.080	0.070	0.060	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

Indicator value	**0.9**	**1.0**	**1.1**	**1.3**	**1.4**	**1.3**	**1.1**	**1.0**	**0.8**	**0.7**	**0.6**	**0.5**

Licensee Comments:

9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	**4Q/14**	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**	**3Q/16**
Successful opportunities	14.0	74.0	41.0	27.0	32.0	106.0	44.0	29.0
Total opportunities	14.0	74.0	43.0	27.0	32.0	109.0	44.0	32.0
Indicator value	**98.9%**	**98.8%**	**98.4%**	**98.3%**	**98.3%**	**98.3%**	**98.4%**	**97.9%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Participating Key personnel	77.0	74.0	74.0	72.0	75.0	76.0	78.0	77.0
Total Key personnel	77.0	74.0	74.0	72.0	75.0	76.0	78.0	77.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
Successful siren-tests	3901	3834	3902	3962	3903	3897	3902	3900
Total sirens-tests	3904	3840	3904	3965	3904	3904	3904	3904
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/14	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: November 2, 2016

Byron 1

4Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station 4Q2016 Data Unit 1

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Unplanned scrams	1.0	0	0	0	0	0	0	0
Critical hours	2026.0	2184.0	1800.0	2184.2	2183.0	2184.0	2208.0	2209.0
Indicator value	**0.8**	**0.8**	**0.9**	**0.9**	**0**	**0**	**0**	**0**

Licensee Comments:

1Q/15: UNIT 1 AUTOMATICALLY TRIPPED AS A RESULT OF A WEATHER-RELATED EVENT THAT RESULTED IN A LOSS OF BUS 4. TRANSFORMERS AND BUSHINGS WERE INSPECTED AND REPAIRED.

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Unplanned power changes	0	0	0	0	1.0	0	0	0
Critical hours	2026.0	2184.0	1800.0	2184.2	2183.0	2184.0	2208.0	2209.0
Indicator value	**0.8**	**0.8**	**0.9**	**0**	**0.8**	**0.8**	**0.8**	**0.8**

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Safety System Functional Failures	0	0	0	1	0	1	1	0
Indicator value	**0**	**0**	**0**	**1**	**1**	**2**	**3**	**2**

Licensee Comments:

3Q/16: LER 2016-001-00, May 2016 AF Diesel Intake Design Deficiency Due to High Energy Line Break (HELB) Concerns. LER 2016-002-00 was issued 7/21/16, for Inadequate protection from Tornado Missiles Due to Non-conforming Design Conditions. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

2Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted. May 2016 - LER 2016-001-00 IR2636112 ICES#322087

1Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

4Q/15: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**	**3Q/16**	**4Q/16**
UAI (ΔCDF)	6.26E-08	6.26E-08	6.20E-08	5.03E-08	1.15E-08	8.38E-09	7.31E-09	6.00E-10
URI (ΔCDF)	-2.71E-07	-2.71E-07	-2.71E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.84E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.10E-07**	**-2.10E-07**	**-2.10E-07**	**-1.30E-07**	**-1.70E-07**	**-1.80E-07**	**-1.80E-07**	**-1.80E-07**

Licensee Comments:

3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**	**3Q/16**	**4Q/16**
UAI (ΔCDF)	-1.89E-08	-1.89E-08	-1.41E-08	-1.25E-08	1.10E-09	4.03E-08	5.24E-08	4.18E-08
URI (ΔCDF)	-9.21E-09	-9.21E-09	-9.21E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.80E-08**	**-2.80E-08**	**-2.30E-08**	**-1.90E-08**	**-5.30E-09**	**3.40E-08**	**4.60E-08**	**3.50E-08**

Licensee Comments:

3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: Changed PRA Parameter(s).

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (ΔCDF)	3.66E-08	1.49E-07	2.24E-07	1.75E-07	2.18E-07	1.88E-07	1.85E-07	1.70E-07
URI (ΔCDF)	-3.74E-07	1.07E-07	8.13E-08	9.22E-08	8.68E-08	8.69E-08	8.67E-08	8.84E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.40E-07**	**2.60E-07**	**3.10E-07**	**2.70E-07**	**3.00E-07**	**2.70E-07**	**2.70E-07**	**2.60E-07**

Licensee Comments:

4Q/16: Risk Cap Invoked. 3Q16: U2 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MSPI-001 Rev 18 was approved in June 2016

3Q/16: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

2Q/16: Risk Cap Invoked.

1Q/16: Risk Cap Invoked.

4Q/15: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: Risk Cap Invoked. Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**	**3Q/16**	**4Q/16**
UAI (ΔCDF)	-1.11E-08	4.34E-08	4.18E-08	-2.39E-08	-2.39E-08	-2.39E-08	2.87E-08	2.87E-08
URI (ΔCDF)	2.69E-07	2.69E-07	-1.08E-07	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.60E-07**	**3.10E-07**	**-6.60E-08**	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**	**-4.80E-08**	**-4.80E-08**

Licensee Comments:

4Q/16: U1-U2 Train A crosstie considered unavailable starting 10/28/11 when standing order 11-057 and 1/2BFRH.1 procedure revisions were issued to remove procedural guidance on use of crosstie modification pending NRC approval. Reference IR 1257908

3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: Changed PRA Parameter(s).

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**	**3Q/16**	**4Q/16**
UAI (ΔCDF)	2.27E-07	1.86E-07	1.85E-07	4.78E-08	3.74E-08	2.63E-08	1.99E-08	3.02E-08
URI (ΔCDF)	1.69E-08	1.69E-08	-9.41E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.40E-07**	**2.00E-07**	**9.10E-08**	**-7.20E-09**	**-1.80E-08**	**-2.90E-08**	**-3.50E-08**	**-2.50E-08**

Licensee Comments:

3Q/16: Changed PRA Parameter(s). 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

4Q/15: Changed PRA Parameter(s).

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**	**7/15**	**8/15**	**9/15**	**10/15**	**11/15**	**12/15**
Maximum activity	0.000296	0.000305	0.000308	0.000333	0.000343	0.000369	0.000500	0.000389	0.000383	0.000154	0.000156	0.000168
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator												

value	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**	**0**
Reactor Coolant System Activity	**1/16**	**2/16**	**3/16**	**4/16**	**5/16**	**6/16**	**7/16**	**8/16**	**9/16**	**10/16**	**11/16**	**12/16**
Maximum activity	0.000173	0.000267	0.000191	0.000204	0.000214	0.000220	0.000234	0.000250	0.000249	0.000256	0.000280	0.000294
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments:

9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Reactor Coolant System Leakage

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	**1/15**	**2/15**	**3/15**	**4/15**	**5/15**	**6/15**	**7/15**	**8/15**	**9/15**	**10/15**	**11/15**	**12/15**
Maximum leakage	0.040	0.040	0.050	0.047	0.040	0.040	0.040	0.040	0.040	0.090	0.100	0.110

Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.9**	**1.0**	**1.1**
Reactor Coolant System Leakage	**1/16**	**2/16**	**3/16**	**4/16**	**5/16**	**6/16**	**7/16**	**8/16**	**9/16**	**10/16**	**11/16**	**12/16**
Maximum leakage	0.130	0.140	0.130	0.110	0.100	0.080	0.070	0.060	0.050	0.070	0.140	0.270
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.4**	**1.3**	**1.1**	**1.0**	**0.8**	**0.7**	**0.6**	**0.5**	**0.7**	**1.4**	**2.7**

Licensee Comments:

9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Drill/Exercise Performance

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**	**3Q/16**	**4Q/16**
Successful opportunities	74.0	41.0	27.0	32.0	106.0	44.0	29.0	34.0
Total opportunities	74.0	43.0	27.0	32.0	109.0	44.0	32.0	34.0

Indicator value	**98.8%**	**98.4%**	**98.3%**	**98.3%**	**98.3%**	**98.4%**	**97.9%**	**98.0%**

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	**1Q/15**	**2Q/15**	**3Q/15**	**4Q/15**	**1Q/16**	**2Q/16**	**3Q/16**	**4Q/16**
Participating Key personnel	74.0	74.0	72.0	75.0	76.0	78.0	77.0	77.0
Total Key personnel	74.0	74.0	72.0	75.0	76.0	78.0	77.0	77.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Successful siren-tests	3834	3902	3962	3903	3897	3902	3900	3780
Total sirens-tests	3840	3904	3965	3904	3904	3904	3904	3782
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Action Matrix Summary | Inspection Findings Summary | PI Summary | Reactor Oversight Process

Last Modified: January 24, 2017

United States Nuclear Regulatory Commission
Protecting People and the Environment

Byron 1 – Quarterly Performance Indicators

4Q/2016 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station 4Q2016 Data Unit 1

On this page:

- Unplanned Scrams (IE01)
- Unplanned Power Changes per 7000 Critical Hours (IE03)
- Unplanned Scrams with Complications (IE04)
- Safety System Functional Failures (MS05)
- Emergency AC Power Systems (MS06)
- High Pressure Injection Systems (MS07)
- Heat Removal Systems (MS08)
- Residual Heat Removal Systems (MS09)
- Cooling Water Systems (MS10)
- Reactor Coolant System Activity (BI01)
- Reactor Coolant System Leakage (BI02)
- Drill/Exercise Performance (EP01)
- Emergency Response Organization Drill Participation (EP02)
- Alert and Notification System Reliability (EP03)
- Occupational Exposure Control Effectiveness (OR01)
- RETS/OCDM Radiological Effluent Occurrence (PR01)
- Protected Area Equipment (PP01)

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Unplanned scrams	1.0	0	0	0	0	0	0	0
Critical hours	2026.0	2184.0	1800.0	2184.2	2183.0	2184.0	2208.0	2209.0
Indicator value	**0.8**	**0.8**	**0.9**	**0.9**	**0**	**0**	**0**	**0**

TOP

Licensee Comments:
1Q/15: UNIT 1 AUTOMATICALLY TRIPPED AS A RESULT OF A WEATHER-RELATED EVENT THAT RESULTED IN A LOSS OF BUS 4. TRANSFORMERS AND BUSHINGS WERE INSPECTED AND REPAIRED.

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Unplanned power changes	0	0	0	0	1.0	0	0	0
Critical hours	2026.0	2184.0	1800.0	2184.2	2183.0	2184.0	2208.0	2209.0
Indicator value	**0.8**	**0.8**	**0.9**	**0**	**0.8**	**0.8**	**0.8**	**0.8**

TOP

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

TOP

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Safety System Functional Failures	0	0	0	1	0	1	1	0
Indicator value	**0**	**0**	**0**	**1**	**1**	**2**	**3**	**2**

TOP

Licensee Comments:
3Q/16: LER 2016-001-00, May 2016 AF Diesel Intake Design Deficiency Due to High Energy Line Break (HELB) Concerns. LER 2016-002-00 was issued 7/21/16, for Inadequate protection from Tornado Missiles Due to Non-conforming Design Conditions. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
2Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted. May 2016 - LER 2016-001-00 IR2636112 ICES#322087
1Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.
4Q/15: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (ΔCDF)	6.26E-08	6.26E-08	6.20E-08	5.03E-08	1.15E-08	8.38E-09	7.31E-09	6.00E-10
URI (ΔCDF)	-2.71E-07	-2.71E-07	-2.71E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.84E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.10E-07**	**-2.10E-07**	**-2.10E-07**	**-1.30E-07**	**-1.70E-07**	**-1.80E-07**	**-1.80E-07**	**-1.80E-07**

TOP

Licensee Comments:
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (ΔCDF)	-1.89E-08	-1.89E-08	-1.41E-08	-1.25E-08	1.10E-09	4.03E-08	5.24E-08	4.18E-08
URI (ΔCDF)	-9.21E-09	-9.21E-09	-9.21E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.80E-08**	**-2.80E-08**	**-2.30E-08**	**-1.90E-08**	**-5.30E-09**	**3.40E-08**	**4.60E-08**	**3.50E-08**

TOP

Licensee Comments:
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (ΔCDF)	3.66E-08	1.49E-07	2.24E-07	1.75E-07	2.18E-07	1.88E-07	1.85E-07	1.70E-07
URI (ΔCDF)	-3.74E-07	1.07E-07	8.13E-08	9.22E-08	8.68E-08	8.69E-08	8.67E-08	8.84E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-3.40E-07**	**2.60E-07**	**3.10E-07**	**2.70E-07**	**3.00E-07**	**2.70E-07**	**2.70E-07**	**2.60E-07**

TOP

Licensee Comments:
4Q/16: Risk Cap Invoked. 3Q16: U2 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MSPI-001 Rev 18 was approved in June 2016
3Q/16: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
2Q/16: Risk Cap Invoked.
1Q/16: Risk Cap Invoked.
4Q/15: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Risk Cap Invoked. Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (ΔCDF)	-1.11E-08	4.34E-08	4.18E-08	-2.39E-08	-2.39E-08	-2.39E-08	2.87E-08	2.87E-08
URI (ΔCDF)	2.69E-07	2.69E-07	-1.08E-07	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.60E-07**	**3.10E-07**	**-6.60E-08**	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**	**-4.80E-08**	**-4.80E-08**

TOP

Licensee Comments:
4Q/16: U1-U2 Train A crosstie considered unavailable starting 10/28/11 when standing order 11-057 and 1/2BFRH.1 procedure revisions were issued to remove procedural guidance on use of crosstie modification pending NRC approval. Reference IR 1257908
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
UAI (ΔCDF)	2.27E-07	1.86E-07	1.85E-07	4.78E-08	3.74E-08	2.63E-08	1.99E-08	3.02E-08
URI (ΔCDF)	1.69E-08	1.69E-08	-9.41E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.40E-07**	**2.00E-07**	**9.10E-08**	**-7.20E-09**	**-1.80E-08**	**-2.90E-08**	**-3.50E-08**	**-2.50E-08**

TOP

Licensee Comments:
3Q/16: Changed PRA Parameter(s). 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Reactor Coolant System Activity

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15
Maximum activity	0.000296	0.000305	0.000308	0.000333	0.000343	0.000369	0.000500	0.000389	0.000383	0.000154	0.000156	0.000168
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16
Maximum activity	0.000173	0.000267	0.000191	0.000204	0.000214	0.000220	0.000234	0.000250	0.000249	0.000256	0.000280	0.000294
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments:
9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15
Maximum leakage	0.040	0.040	0.050	0.047	0.040	0.040	0.040	0.040	0.040	0.090	0.100	0.110
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.9**	**1.0**	**1.1**

Reactor Coolant System Leakage	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16
Maximum leakage	0.130	0.140	0.130	0.110	0.100	0.080	0.070	0.060	0.050	0.070	0.140	0.270
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.4**	**1.3**	**1.1**	**1.0**	**0.8**	**0.7**	**0.6**	**0.5**	**0.7**	**1.4**	**2.7**

TOP

Licensee Comments:
9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Successful opportunities	74.0	41.0	27.0	32.0	106.0	44.0	29.0	34.0
Total opportunities	74.0	43.0	27.0	32.0	109.0	44.0	32.0	34.0
Indicator value	**98.8%**	**98.4%**	**98.3%**	**98.3%**	**98.3%**	**98.4%**	**97.9%**	**98.0%**

TOP

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Participating Key personnel	74.0	74.0	72.0	75.0	76.0	78.0	77.0	77.0
Total Key personnel	74.0	74.0	72.0	75.0	76.0	78.0	77.0	77.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

TOP

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
Successful siren-tests	3834	3902	3962	3903	3897	3902	3900	3780
Total sirens-tests	3840	3904	3965	3904	3904	3904	3904	3782
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**

TOP

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/15	2Q/15	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Current data as of: February 8, 2017

Page Last Reviewed/Updated Wednesday, June 07, 2017

Byron 1 – Quarterly Performance Indicators

2Q/2017 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station 2Q2017 Unit 1

On this page:

- Unplanned Scrams (IE01)
- Unplanned Power Changes per 7000 Critical Hours (IE03)
- Unplanned Scrams with Complications (IE04)
- Safety System Functional Failures (MS05)
- Emergency AC Power Systems (MS06)
- High Pressure Injection Systems (MS07)
- Heat Removal Systems (MS08)
- Residual Heat Removal Systems (MS09)
- Cooling Water Systems (MS10)
- Reactor Coolant System Activity (BI01)
- Reactor Coolant System Leakage (BI02)
- Drill/Exercise Performance (EP01)
- Emergency Response Organization Drill Participation (EP02)
- Alert and Notification System Reliability (EP03)
- Occupational Exposure Control Effectiveness (OR01)
- RETS/OCDM Radiological Effluent Occurrence (PR01)
- Protected Area Equipment (PP01)

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	1800.0	2184.2	2183.0	2184.0	2208.0	2209.0	1509.1	2184.0
Indicator value	**0.9**	**0.9**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Unplanned power changes	0	0	1.0	0	0	0	1.0	0
Critical hours	1800.0	2184.2	2183.0	2184.0	2208.0	2209.0	1509.1	2184.0
Indicator value	**0.9**	**0**	**0.8**	**0.8**	**0.8**	**0.8**	**0.9**	**0.9**

TOP

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

TOP

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Safety System Functional Failures	0	1	0	1	1	0	0	0
Indicator value	**0**	**1**	**1**	**2**	**3**	**2**	**2**	**1**

TOP

Licensee Comments:
3Q/16: LER 2016-001-00, May 2016 AF Diesel Intake Design Deficiency Due to High Energy Line Break (HELB) Concerns. LER 2016-002-00 was issued 7/21/16, for Inadequate protection from Tornado Missiles Due to Non-conforming Design Conditions. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
2Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted. May 2016 - LER 2016-001-00 IR2636112 ICES#322087
1Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.
4Q/15: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	6.20E-08	5.03E-08	1.15E-08	8.38E-09	7.31E-09	6.00E-10	2.38E-08	5.72E-08
URI (ΔCDF)	-2.71E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.82E-07	-2.56E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.10E-07**	**-1.30E-07**	**-1.70E-07**	**-1.80E-07**	**-1.80E-07**	**-1.80E-07**	**-1.60E-07**	**-2.00E-07**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	-1.41E-08	-1.25E-08	1.10E-09	4.03E-08	5.24E-08	4.18E-08	6.19E-08	3.29E-08
URI (ΔCDF)	-9.21E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.49E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-2.30E-08**	**-1.90E-08**	**-5.30E-09**	**3.40E-08**	**4.60E-08**	**3.50E-08**	**5.60E-08**	**2.60E-08**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	2.24E-07	1.75E-07	2.18E-07	1.88E-07	1.85E-07	1.70E-07	1.72E-07	1.15E-07
URI (ΔCDF)	8.13E-08	9.22E-08	8.68E-08	8.69E-08	8.67E-08	8.84E-08	9.25E-08	3.96E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.10E-07**	**2.70E-07**	**3.00E-07**	**2.70E-07**	**2.70E-07**	**2.60E-07**	**2.60E-07**	**1.50E-07**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
1Q/17: Risk Cap Invoked.
4Q/16: Risk Cap Invoked. 3Q16: U2 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MSPI-001 Rev 18 was approved in June 2016
3Q/16: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
2Q/16: Risk Cap Invoked.
1Q/16: Risk Cap Invoked.
4Q/15: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Risk Cap Invoked. Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	4.18E-08	-2.39E-08	-2.39E-08	-2.39E-08	2.87E-08	2.87E-08	-2.30E-08	-1.42E-08
URI (ΔCDF)	-1.08E-07	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08	-4.91E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-6.60E-08**	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**	**-4.80E-08**	**-4.80E-08**	**-9.90E-08**	**-6.30E-08**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
4Q/16: U1-U2 Train A crosstie considered unavailable starting 10/28/11 when standing order 11-057 and 1/2BFRH.1 procedure revisions were issued to remove procedural guidance on use of crosstie modification pending NRC approval. Reference IR 1257908
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
UAI (ΔCDF)	1.85E-07	4.78E-08	3.74E-08	2.63E-08	1.99E-08	3.02E-08	1.49E-08	2.99E-08
URI (ΔCDF)	-9.41E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08	-9.36E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**9.10E-08**	**-7.20E-09**	**-1.80E-08**	**-2.90E-08**	**-3.50E-08**	**-2.50E-08**	**-4.00E-08**	**-6.40E-08**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
3Q/16: Changed PRA Parameter(s). 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	7/15	8/15	9/15	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16
Maximum activity	0.000500	0.000389	0.000383	0.000154	0.000156	0.000168	0.000173	0.000267	0.000191	0.000204	0.000214	0.000220
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17
Maximum activity	0.000234	0.000250	0.000249	0.000256	0.000280	0.000294	0.000294	0.000315	N/A	0.000117	0.000118	0.000130
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**N/A**	**0**	**0**	**0**

TOP

Licensee Comments:
3/17: No steady state data was measured this period due to refueling outage B1R21
9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	7/15	8/15	9/15	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16
Maximum leakage	0.040	0.040	0.040	0.090	0.100	0.110	0.130	0.140	0.130	0.110	0.100	0.080
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.4**	**0.4**	**0.4**	**0.9**	**1.0**	**1.1**	**1.3**	**1.4**	**1.3**	**1.1**	**1.0**	**0.8**

Reactor Coolant System Leakage	7/16	8/16	9/16	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17
Maximum leakage	0.070	0.060	0.050	0.070	0.140	0.270	0.320	0.390	0.080	0.050	0.060	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.7**	**0.6**	**0.5**	**0.7**	**1.4**	**2.7**	**3.2**	**3.9**	**0.8**	**0.5**	**0.6**	**0.5**

TOP

Licensee Comments:
9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Successful opportunities	27.0	32.0	106.0	44.0	29.0	34.0	28.0	55.0
Total opportunities	27.0	32.0	109.0	44.0	32.0	34.0	28.0	56.0
Indicator value	**98.3%**	**98.3%**	**98.3%**	**98.4%**	**97.9%**	**98.0%**	**97.7%**	**98.1%**

TOP

Licensee Comments: none

Notes

ERO Drill Participation	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Participating Key personnel	72.0	75.0	76.0	78.0	77.0	77.0	78.0	66.0
Total Key personnel	72.0	75.0	76.0	78.0	77.0	77.0	78.0	66.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

TOP

Licensee Comments: none

Alert & Notification System

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
Successful siren-tests	3962	3903	3897	3902	3900	3780	3964	3904
Total sirens-tests	3965	3904	3904	3904	3904	3782	3965	3904
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**100.0%**

TOP

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	3Q/15	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Current data as of: July 26, 2017

Page Last Reviewed/Updated Wednesday, June 07, 2017

United States Nuclear Regulatory Commission
Protecting People and the Environment

Byron 1 – Quarterly Performance Indicators

3Q/2017 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station Unit 1 3Q2017

On this page:

- Unplanned Scrams (IE01)
- Unplanned Power Changes per 7000 Critical Hours (IE03)
- Unplanned Scrams with Complications (IE04)
- Safety System Functional Failures (MS05)
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- Alert and Notification System Reliability (EP03)
- Occupational Exposure Control Effectiveness (OR01)
- RETS/OCDM Radiological Effluent Occurrence (PR01)
- Protected Area Equipment (PP01)

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2184.2	2183.0	2184.0	2208.0	2209.0	1509.1	2184.0	2208.0
Indicator value	**0.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Unplanned power changes	0	1.0	0	0	0	1.0	0	0
Critical hours	2184.2	2183.0	2184.0	2208.0	2209.0	1509.1	2184.0	2208.0
Indicator value	**0**	**0.8**	**0.8**	**0.8**	**0.8**	**0.9**	**0.9**	**0.9**

TOP

Licensee Comments: none

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

TOP

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Safety System Functional Failures	1	0	1	1	0	0	0	0
Indicator value	**1**	**1**	**2**	**3**	**2**	**2**	**1**	**0**

TOP

Licensee Comments:
3Q/16: LER 2016-001-00, May 2016 AF Diesel Intake Design Deficiency Due to High Energy Line Break (HELB) Concerns. LER 2016-002-00 was issued 7/21/16, for Inadequate protection from Tornado Missiles Due to Non-conforming Design Conditions. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
2Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted. May 2016 - LER 2016-001-00 IR2636112 ICES#322087
1Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.
4Q/15: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

Notes

Mitigating Systems Performance Index, Emergency AC Power System	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)	5.03E-08	1.15E-08	8.38E-09	7.31E-09	6.00E-10	2.38E-08	5.72E-08	5.01E-08
URI (ΔCDF)	-1.84E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.82E-07	-2.56E-07	-2.56E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.30E-07**	**-1.70E-07**	**-1.80E-07**	**-1.80E-07**	**-1.80E-07**	**-1.60E-07**	**-2.00E-07**	**-2.10E-07**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)	-1.25E-08	1.10E-09	4.03E-08	5.24E-08	4.18E-08	6.19E-08	3.29E-08	3.29E-08
URI (ΔCDF)	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.49E-09	-6.49E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.90E-08**	**-5.30E-09**	**3.40E-08**	**4.60E-08**	**3.50E-08**	**5.60E-08**	**2.60E-08**	**2.60E-08**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)	1.75E-07	2.18E-07	1.88E-07	1.85E-07	1.70E-07	1.72E-07	1.15E-07	1.07E-07
URI (ΔCDF)	9.22E-08	8.68E-08	8.69E-08	8.67E-08	8.84E-08	9.25E-08	3.96E-08	3.95E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**2.70E-07**	**3.00E-07**	**2.70E-07**	**2.70E-07**	**2.60E-07**	**2.60E-07**	**1.50E-07**	**1.50E-07**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
1Q/17: Risk Cap Invoked.
4Q/16: Risk Cap Invoked. 3Q16: U2 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MSPI-001 Rev 18 was approved in June 2016
3Q/16: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
2Q/16: Risk Cap Invoked.
1Q/16: Risk Cap Invoked.
4Q/15: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Risk Cap Invoked. Changed PRA Parameter(s).

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)	-2.39E-08	-2.39E-08	-2.39E-08	2.87E-08	2.87E-08	-2.30E-08	-1.42E-08	-1.42E-08
URI (ΔCDF)	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08	-4.91E-08	-4.91E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.00E-07**	**-1.00E-07**	**-1.00E-07**	**-4.80E-08**	**-4.80E-08**	**-9.90E-08**	**-6.30E-08**	**-6.30E-08**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
4Q/16: U1-U2 Train A crosstie considered unavailable starting 10/28/11 when standing order 11-057 and 1/2BFRH.1 procedure revisions were issued to remove procedural guidance on use of crosstie modification pending NRC approval. Reference IR 1257908
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Notes

Mitigating Systems Performance Index, Cooling Water Systems	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
UAI (ΔCDF)	4.78E-08	3.74E-08	2.63E-08	1.99E-08	3.02E-08	1.49E-08	2.99E-08	3.00E-08
URI (ΔCDF)	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08	-9.36E-08	-9.36E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-7.20E-09**	**-1.80E-08**	**-2.90E-08**	**-3.50E-08**	**-2.50E-08**	**-4.00E-08**	**-6.40E-08**	**-6.40E-08**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
3Q/16: Changed PRA Parameter(s). 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
4Q/15: Changed PRA Parameter(s).

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16
Maximum activity	0.000154	0.000156	0.000168	0.000173	0.000267	0.000191	0.000204	0.000214	0.000220	0.000234	0.000250	0.000249
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17
Maximum activity	0.000256	0.000280	0.000294	0.000294	0.000315	N/A	0.000117	0.000118	0.000130	0.000136	0.000138	0.000145
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**N/A**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments:
3/17: No steady state data was measured this period due to refueling outage B1R21
9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	10/15	11/15	12/15	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16
Maximum leakage	0.090	0.100	0.110	0.130	0.140	0.130	0.110	0.100	0.080	0.070	0.060	0.050
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.9**	**1.0**	**1.1**	**1.3**	**1.4**	**1.3**	**1.1**	**1.0**	**0.8**	**0.7**	**0.6**	**0.5**

Reactor Coolant System Leakage	10/16	11/16	12/16	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17
Maximum leakage	0.070	0.140	0.270	0.320	0.390	0.080	0.050	0.060	0.050	0.050	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**0.7**	**1.4**	**2.7**	**3.2**	**3.9**	**0.8**	**0.5**	**0.6**	**0.5**	**0.5**	**0.4**	**0.4**

TOP

Licensee Comments:
9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Successful opportunities	32.0	106.0	44.0	29.0	34.0	28.0	55.0	40.0
Total opportunities	32.0	109.0	44.0	32.0	34.0	28.0	56.0	40.0
Indicator value	**98.3%**	**98.3%**	**98.4%**	**97.9%**	**98.0%**	**97.7%**	**98.1%**	**98.1%**

TOP

Licensee Comments: none

Thresholds: White < 80.0% Yellow < 60.0%

Notes

ERO Drill Participation	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Participating Key personnel	75.0	76.0	78.0	77.0	77.0	78.0	66.0	70.0
Total Key personnel	75.0	76.0	78.0	77.0	77.0	78.0	66.0	70.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

TOP

Licensee Comments: none

Thresholds: White < 94.0% Yellow < 90.0%

Notes

Alert & Notification System	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
Successful siren-tests	3903	3897	3902	3900	3780	3964	3904	3842
Total sirens-tests	3904	3904	3904	3904	3782	3965	3904	3843
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**100.0%**	**100.0%**

TOP

Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	4Q/15	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Current data as of: October 31, 2017

Page Last Reviewed/Updated Monday, November 06, 2017

United States Nuclear Regulatory Commission
Protecting People and the Environment

Byron 1 – Quarterly Performance Indicators

4Q/2017 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: Byron Station 4Q2017 Unit 1

On this page:

- Unplanned Scrams (IE01)
- Unplanned Power Changes per 7000 Critical Hours (IE03)
- Unplanned Scrams with Complications (IE04)
- Safety System Functional Failures (MS05)
- Emergency AC Power Systems (MS06)
- High Pressure Injection Systems (MS07)
- Heat Removal Systems (MS08)
- Residual Heat Removal Systems (MS09)
- Cooling Water Systems (MS10)
- Reactor Coolant System Activity (BI01)
- Reactor Coolant System Leakage (BI02)
- Drill/Exercise Performance (EP01)
- Emergency Response Organization Drill Participation (EP02)
- Alert and Notification System Reliability (EP03)
- Occupational Exposure Control Effectiveness (OR01)
- RETS/OCDM Radiological Effluent Occurrence (PR01)
- Protected Area Equipment (PP01)

Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Unplanned scrams	0	0	0	0	0	0	0	0
Critical hours	2183.0	2184.0	2208.0	2209.0	1509.1	2184.0	2208.0	2209.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TOP

Licensee Comments: none

Thresholds: White > 6.0

Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Unplanned power changes	1.0	0	0	0	1.0	0	0	0
Critical hours	2183.0	2184.0	2208.0	2209.0	1509.1	2184.0	2208.0	2209.0
Indicator value	**0.8**	**0.8**	**0.8**	**0.8**	**0.9**	**0.9**	**0.9**	**0.9**

TOP

Licensee Comments: none

Unplanned Scrams with Complications

Thresholds: White > 1.0

Notes

Unplanned Scrams with Complications	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Scrams with complications	0	0	0	0	0	0	0	0
Indicator value	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

TOP

Licensee Comments: none

Thresholds: White > 5.0

Notes

Safety System Functional Failures (PWR)	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Safety System Functional Failures	0	1	1	0	0	0	0	0
Indicator value	**1**	**2**	**3**	**2**	**2**	**1**	**0**	**0**

TOP

Licensee Comments:
3Q/16: LER 2016-001-00, May 2016 AF Diesel Intake Design Deficiency Due to High Energy Line Break (HELB) Concerns. LER 2016-002-00 was issued 7/21/16, for Inadequate protection from Tornado Missiles Due to Non-conforming Design Conditions. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
2Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted. May 2016 - LER 2016-001-00 IR2636112 ICES#322087
1Q/16: LER 2015-006-00 was issued on 11/30/15 for Mode 3 entered with Turbine Trip safety Function disabled due to Safety Related Relay Leads lifted.

Mitigating Systems Performance Index, Emergency AC Power System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	1.15E-08	8.38E-09	7.31E-09	6.00E-10	2.38E-08	5.72E-08	5.01E-08	5.19E-08
URI (ΔCDF)	-1.84E-07	-1.84E-07	-1.84E-07	-1.84E-07	-1.82E-07	-2.56E-07	-2.56E-07	-2.56E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.70E-07**	**-1.80E-07**	**-1.80E-07**	**-1.80E-07**	**-1.60E-07**	**-2.00E-07**	**-2.10E-07**	**-2.00E-07**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

Mitigating Systems Performance Index, High Pressure Injection System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, High Pressure Injection System	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	1.10E-09	4.03E-08	5.24E-08	4.18E-08	6.19E-08	3.29E-08	3.29E-08	1.32E-08
URI (ΔCDF)	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.37E-09	-6.49E-09	-6.49E-09	-6.49E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-5.30E-09**	**3.40E-08**	**4.60E-08**	**3.50E-08**	**5.60E-08**	**2.60E-08**	**2.60E-08**	**6.80E-09**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

Mitigating Systems Performance Index, Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	2.18E-07	1.88E-07	1.85E-07	1.70E-07	1.72E-07	1.15E-07	1.07E-07	8.81E-08
URI (ΔCDF)	8.68E-08	8.69E-08	8.67E-08	8.84E-08	9.25E-08	3.96E-08	3.95E-08	4.21E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**3.00E-07**	**2.70E-07**	**2.70E-07**	**2.60E-07**	**2.60E-07**	**1.50E-07**	**1.50E-07**	**1.30E-07**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
1Q/17: Risk Cap Invoked.
4Q/16: Risk Cap Invoked. 3Q16: U2 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MSPI-001 Rev 18 was approved in June 2016
3Q/16: Risk Cap Invoked. 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.
2Q/16: Risk Cap Invoked.
1Q/16: Risk Cap Invoked.

Mitigating Systems Performance Index, Residual Heat Removal System

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	-2.39E-08	-2.39E-08	2.87E-08	2.87E-08	-2.30E-08	-1.42E-08	-1.42E-08	-1.42E-08
URI (ΔCDF)	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08	-7.64E-08	-4.91E-08	-4.91E-08	-4.91E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.00E-07**	**-1.00E-07**	**-4.80E-08**	**-4.80E-08**	**-9.90E-08**	**-6.30E-08**	**-6.30E-08**	**-6.30E-08**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
4Q/16: U1-U2 Train A crosstie considered unavailable starting 10/28/11 when standing order 11-057 and 1/2BFRH.1 procedure revisions were issued to remove procedural guidance on use of crosstie modification pending NRC approval. Reference IR 1257908
3Q/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

Mitigating Systems Performance Index, Cooling Water Systems

Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
UAI (ΔCDF)	3.74E-08	2.63E-08	1.99E-08	3.02E-08	1.49E-08	2.99E-08	3.00E-08	2.94E-08
URI (ΔCDF)	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08	-5.50E-08	-9.36E-08	-9.36E-08	-9.36E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	**-1.80E-08**	**-2.90E-08**	**-3.50E-08**	**-2.50E-08**	**-4.00E-08**	**-6.40E-08**	**-6.40E-08**	**-6.40E-08**

TOP

Licensee Comments:
2Q/17: Changed PRA Parameter(s). Changed PRA Parameter(s).
3Q/16: Changed PRA Parameter(s). 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016.

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Activity	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16
Maximum activity	0.000173	0.000267	0.000191	0.000204	0.000214	0.000220	0.000234	0.000250	0.000249	0.000256	0.000280	0.000294
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reactor Coolant System Activity	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17	10/17	11/17	12/17
Maximum activity	0.000294	0.000315	N/A	0.000117	0.000118	0.000130	0.000136	0.000138	0.000145	0.000197	0.000164	0.000170
Technical specification limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Indicator value	**0**	**0**	**N/A**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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Licensee Comments:
3/17: No steady state data was measured this period due to refueling outage B1R21
9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Thresholds: White > 50.0 Yellow > 100.0

Notes

Reactor Coolant System Leakage	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16
Maximum leakage	0.130	0.140	0.130	0.110	0.100	0.080	0.070	0.060	0.050	0.070	0.140	0.270
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**1.3**	**1.4**	**1.3**	**1.1**	**1.0**	**0.8**	**0.7**	**0.6**	**0.5**	**0.7**	**1.4**	**2.7**

Reactor Coolant System Leakage	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17	10/17	11/17	12/17
Maximum leakage	0.320	0.390	0.080	0.050	0.060	0.050	0.050	0.040	0.040	0.040	0.040	0.060
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	**3.2**	**3.9**	**0.8**	**0.5**	**0.6**	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.6**

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Licensee Comments:
9/16: 4Q15: Unit 1 CDF and MSPI result were updated using the application specific model BB011b4, which takes credit for the Generation III Westinghouse RCP Shutdown Seals. The corresponding BY-MPSI-001 Rev 17 was approved in January 2016. PI

Thresholds: White < 90.0% Yellow < 70.0%

Notes

Drill/Exercise Performance	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Successful opportunities	106.0	44.0	29.0	34.0	28.0	55.0	40.0	12.0
Total opportunities	109.0	44.0	32.0	34.0	28.0	56.0	40.0	12.0
Indicator value	**98.3%**	**98.4%**	**97.9%**	**98.0%**	**97.7%**	**98.1%**	**98.1%**	**98.0%**

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Licensee Comments: none

Notes

ERO Drill Participation	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Participating Key personnel	76.0	78.0	77.0	77.0	78.0	66.0	70.0	72.0
Total Key personnel	76.0	78.0	77.0	77.0	78.0	66.0	70.0	72.0
Indicator value	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

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Licensee Comments: none

Notes

Alert & Notification System	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
Successful siren-tests	3897	3902	3900	3780	3964	3904	3842	3842
Total sirens-tests	3904	3904	3904	3782	3965	3904	3843	3843
Indicator value	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**100.0%**	**100.0%**	**100.0%**

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Licensee Comments: none

Thresholds: White > 2.0 Yellow > 5.0

Notes

Occupational Exposure Control Effectiveness	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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Licensee Comments: none

Thresholds: White > 1.0 Yellow > 3.0

Notes

RETS/ODCM Radiological Effluent	1Q/16	2Q/16	3Q/16	4Q/16	1Q/17	2Q/17	3Q/17	4Q/17
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.

Current data as of: February 1, 2018

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