

FY 2004 Reliability Summary

Reliability Budget per memo of 9/22/2003							
System	Unavailability Allotment		Number of Faults	Mean Time to Beam Loss	Faults Per Day		
RF	0.9%		200		0.12		
Diagnostics	0.2%		800		0.12		
PS	0.9%		240		0.03		
Controls	0.5%		533.3		0.10		
Network	0.2%		4800		0.05		
Interlocks	0.3%		686		0.01		
Accelerator	0.1%		2400		0.04		
Beamline	0.1%		2400		0.01		
Radiation	0.1%		1600		0.01		
Water/ME	0.3%		480		0.02		
Vacuum	0.3%		2400		0.05		
S&A	0.0%		48000		0.01		
Operations	0.1%		1600		0.00		
Software	0.1%		1600		0.02		
Soft/OAG	not specified						
Soft/OPS	not specified						
Physics	0.0%		48000		0.00		
ID-FE	0.1%		4800		0.00		
ID-FE/MD	not specified						
ID-FE/XFE	not specified						
Utilities	0.5%		800		0.03		
Electrical - APS	0.1%		2400		0.03		
Electrical - ANL	0.3%		2400		0.01		
Cooling - ANL	0.1%		2400		0.01		
Other	0.3%		1200		0.01		
Unidentified	0.1%		1200		0.02		
<b>Total</b>	<b>4.8%</b>			<b>47.9</b>	<b>0.50</b>		
Data through Run 2004-2							
FY 2004 Actual	Unavailability Percent	Unavailability Hours	Number of Faults	Mean Time to Beam Loss	Faults Per Day		
RF	0.13%	6.63	11	464.8	0.05	User Downtime Hours	112.4
Diagnostics	0.44%	22.74	13	393.3	0.06		
PS	0.20%	10.52	9	568.1	0.04	Scheduled Hours	5224.9
Controls	0.15%	7.84	8	639.1	0.04		
Network	0.44%	23.10	4	1278.1	0.02		
Interlocks	0.49%	25.58	18	284.0	0.08	Delivered Hours	5112.5
Accelerator	0.17%	9.13	5	1022.5	0.02		
Beamline	0.20%	10.27	7	730.4	0.03	User Availability	97.8%
Radiation	0.12%	6.18	6	852.1	0.03		
Water/ME	0.09%	4.55	4	1278.1	0.02		
Vacuum	0.02%	0.88	1	5112.5	0.00		
S&A	0.00%	0.00	0		0.00		
Operations	0.02%	1.28	2	2556.3	0.01		
Software	0.04%	2.23	2	2556.3	0.01		
Soft/OAG	0.04%	2.23	2	2556.3	0.01		
Soft/OPS	0.00%	0.00	0		0.00		
Physics	0.00%	0.00	0		0.00		
ID-FE	0.00%	0.00	0		0.00		
ID-FE/MD	0.00%	0.00	0		0.00		
ID-FE/XFE	0.00%	0.00	0		0.00		
Utilities	0.01%	0.28	1	5112.5	0.00		
Electrical - APS	0.01%	0.28	1	5112.5	0.00		
Electrical - ANL	0.00%	0.00	0		0.00		
Cooling - ANL	0.00%	0.00	0		0.00		
Other	0.11%	5.64	11	464.8	0.05		
Unidentified	0.02%	1.17	3	1704.2	0.01		
<b>Total</b>	<b>2.15%</b>	<b>112.45</b>	<b>89</b>	<b>57.4</b>	<b>0.42</b>		

Run 2003-3	Unavailability Percent	Unavailability Hours	Number of Faults	Mean Time to Beam Loss	Faults Per Day		
RF	0.05%	0.77	2	811.2	0.03	User Downtime Hours	43.7
Diagnostics	0.13%	2.10	2	811.2	0.03		
PS	0.36%	6.06	5	324.5	0.07	Scheduled Hours	1666.0
Controls	0.16%	2.63	4	405.6	0.06		
Network	1.18%	19.70	3	540.8	0.04		
Interlocks	0.49%	8.23	7	231.8	0.10	Delivered Hours	1622.3
Accelerator	0.00%	0.00	0		0.00		
Beamline	0.46%	7.65	6	270.4	0.09	User Availability	97.4%
Radiation	0.04%	0.58	1	1622.3	0.01		
Water/ME	0.05%	0.88	1	1622.3	0.01		
Vacuum	0.00%	0.00	0		0.00		
S&A	0.00%	0.00	0		0.00		
Operations	0.03%	0.50	1	1622.3	0.01		
Software	0.09%	1.53	1	1622.3	0.01		
Soft/OAG	0.09%	1.53	1	1622.3	0.01		
Soft/OPS	0.00%	0.00	0		0.00		
Physics	0.00%	0.00	0		0.00		
ID-FE	0.00%	0.00	0		0.00		
ID-FE/MD	0.00%	0.00	0		0.00		
ID-FE/XFE	0.00%	0.00	0		0.00		
Utilities	0.00%	0.00	0		0.00		
Electrical - APS	0.00%	0.00	0		0.00		
Electrical - ANL	0.00%	0.00	0		0.00		
Cooling - ANL	0.00%	0.00	0		0.00		
Other	0.03%	0.45	1	1622.3	0.01		
Unidentified	0.05%	0.77	2	811.2	0.03		
<b>Total</b>	<b>2.69%</b>	<b>43.62</b>	<b>29</b>	<b>55.9</b>	<b>0.43</b>		

  

Run 2004-1	Unavailability Percent	Unavailability Hours	Number of Faults	Mean Time to Beam Loss	Faults Per Day		
RF	0.19%	3.15	4	402.5	0.06	User Downtime Hours	36.9
Diagnostics	1.22%	20.11	10	161.0	0.15		
PS	0.16%	2.62	2	805.0	0.03	Scheduled Hours	1646.9
Controls	0.05%	0.82	1	1610.0	0.01		
Network	0.00%	0.00			0.00		
Interlocks	0.34%	5.57	3	536.7	0.04	Delivered Hours	1610.0
Accelerator	0.08%	1.33			0.00		
Beamline	0.16%	2.62	1	1610.0	0.01	User Availability	97.8%
Radiation	0.10%	1.62	2	805.0	0.03		
Water/ME	0.10%	1.62	1	1610.0	0.01		
Vacuum	0.05%	0.88	1	1610.0	0.01		
S&A	0.00%	0.00			0.00		
Operations	0.00%	0.00			0.00		
Software	0.00%	0.00			0.00		
Soft/OAG	0.00%	0.00			0.00		
Soft/OPS	0.00%	0.00			0.00		
Physics	0.00%	0.00			0.00		
ID-FE	0.00%	0.00			0.00		
ID-FE/MD	0.00%	0.00			0.00		
ID-FE/XFE	0.00%	0.00			0.00		
Utilities	0.02%	0.28	1	1610.0	0.01		
Electrical - APS	0.02%	0.28	1	1610.0	0.01		
Electrical - ANL	0.00%	0.00			0.00		
Cooling - ANL	0.00%	0.00			0.00		
Other	0.11%	1.79	5	322.0	0.07		
Unidentified	0.00%	0.00			0.00		
<b>Total</b>	<b>2.24%</b>	<b>36.83</b>	<b>28</b>	<b>57.5</b>	<b>0.42</b>		

Run 2004-2	Unavailability Percent	Unavailability Hours	Number of Faults	Mean Time to Beam Loss	Faults Per Day		
RF	0.14%	2.72	5	376.0	0.06	User Downtime Hours	31.8
Diagnostics	0.03%	0.53	1	1880.2	0.01		
PS	0.10%	1.85	2	940.1	0.03	Scheduled Hours	1912.0
Controls	0.23%	4.40	3	626.7	0.04		
Network	0.18%	3.40	1	1880.2	0.01		
Interlocks	0.62%	11.78	8	235.0	0.10	Delivered Hours	1880.2
Accelerator	0.41%	7.80	5	376.0	0.06		
Beamline	0.00%				0.00	User Availability	98.3%
Radiation	0.21%	3.98	3	626.7	0.04		
Water/ME	0.11%	2.05	2	940.1	0.03		
Vacuum	0.00%				0.00		
S&A	0.00%				0.00		
Operations	0.04%	0.78	1	1880.2	0.01		
Software	0.04%	0.70	1	1880.2	0.01		
Soft/OAG	0.04%	0.70	1	1880.2	0.01		
Soft/OPS	0.00%				0.00		
Physics	0.00%				0.00		
ID-FE	0.00%				0.00		
ID-FE/MD	0.00%				0.00		
ID-FE/XFE	0.00%				0.00		
Utilities	0.00%				0.00		
Electrical - APS	0.00%				0.00		
Electrical - ANL	0.00%				0.00		
Cooling - ANL	0.00%				0.00		
Other	0.18%	3.40	5	376.0	0.06		
Unidentified	0.02%	0.40	1	1880.2	0.01		
<b>Total</b>	<b>1.67%</b>	<b>32.01</b>	<b>32</b>	<b>58.8</b>	<b>0.41</b>		

Updated 8/26/04