

FY 2019 Reliability Summary

Data through Run 2019-2

	Unavailability	Unavailability	Number	Mean Time	Faults Per		
FY 2018 Actual	Percent	Hours	of Faults	to Beam Loss	Day		
RF	0.75%	37.72	19	258.4	0.09	User Downtime Hours	90.82
Diagnostics	0.00%	0.00	0		0.00		
PS	0.40%	20.05	11	446.3	0.05	Scheduled Hours	5000
Controls	0.19%	9.70	4	1227.3	0.02		
Network	0.00%	0.00	0		0.00	Delivered Hours	4909.2
Safety Interlocks	0.03%	1.48	2	2454.6	0.01		
Radiation Monitors	0.04%	1.77	2	2454.6	0.01	User Availability	98.18%
Water/ME	0.23%	11.50	6	818.2	0.03		
Vacuum	0.01%	0.40	1	4909.2	0.00	Longest period w/out a fault	377.46
Operations	0.01%	0.58	2	2454.6	0.01		
ID-FE	0.00%	0.00	0		0.00		
Utilities	0.06%	2.95	2	2454.6	0.01		
Electrical - APS	0.00%	0.00	0		0.00		
Electrical - ANL	0.06%	2.95	2	2454.6	0.01		
Cooling - ANL	0.00%	0.00	0		0.00		
Other	0.01%	0.37	1	4909.2	0.00		
Unidentified	0.09%	4.30	8	613.6	0.04		
APS-U					0.00		
Total	1.82%	90.82	58	84.6	0.28		

	Unavailability	Unavailability	Number	Mean Time	Faults Per		
Run 2018-3	Percent	Hours	of Faults	to Beam Loss	Day		
RF	1.27%	19.85	6	254.4	0.09	User Downtime Hours	34.63
Diagnostics	0.00%	0.00	0		0.00		
PS	0.55%	8.57	3	508.8	0.05	Scheduled Hours	1561.0
Controls	0.00%	0.00	0		0.00	Delivered Hours	1526.4
Network							
Safety Interlocks	0.05%	0.72	1	1526.4	0.02	User Availability	97.78%
Radiation Monitors	0.00%	0.00	0		0.00		
Water/ME	0.21%	3.27	1	1526.4	0.02		
Vacuum	0.00%	0.00	0		0.00	Longest period w/out a fault	281.71
Operations	0.04%	0.58	2	763.2	0.03		
ID-FE	0.00%	0.00	0		0.00		
Utilities	0.04%	0.55	1	1526.4	0.02		
Electrical - APS	0.00%	0.00	0		0.00		
Electrical - ANL	0.04%	0.55	1	1526.4	0.02		
Cooling - ANL	0.00%	0.00	0		0.00		
Other	0.00%	0.00	0		0.00		
Unidentified	0.07%	1.10	2	763.2	0.00		
Total	2.27%	34.63	16	95.4	0.25		

	Unavailability	Unavailability	Number	Mean Time	Faults Per		
Run 2019-1	Percent	Hours	of Faults	to Beam Loss	Day		
RF	0.70%	11.98	6	281.8	0.09	User Downtime Hours	28.03
Diagnostics	0.00%	0.00	0		0.00		
PS	0.51%	8.80	6	281.8	0.09	Scheduled Hours	1719
Controls	0.00%	0.00	0		0.00	Delivered Hours	1691.0
Network							
Safety Interlocks	0.04%	0.77	1	1691.0	0.01	User Availability	98.4%
Radiation Monitors	0.10%	1.77	2	845.5	0.03		
MOM	0.17%	2.90	1	1691.0	0.01		
Vacuum	0.02%	0.40	1	1691.0	0.01	Longest period w/out a fault	377.46
Operations	0.00%	0.00	0		0.00		
ID-FE	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	0.00%	0.00	0		0.00		
Unidentified	0.08%	1.42	2	845.5	0.03		
Total	1.66%	28.03	19	89.0	0.27		

	Unavailability	Unavailability	Number	Mean Time	Faults Per		
Run 2019-2	Percent	Hours	of Faults	to Beam Loss	Day		
RF	0.34%	5.88	7	218.1	0.11	User Downtime Hours	28.15
Diagnostics	0.00%	0.00	0		0.00		
PS	0.16%	2.68	2	763.2	0.03	Scheduled Hours	1720.0
Controls	0.56%	9.70	4	381.6	0.06	Delivered Hours	1691.8
Network	0.00%	0.00	0		0.00		
Safety Interlocks	0.00%	0.00	0		0.00	User Availability	98.4%
Radiation Monitors	0.00%	0.00	0		0.00		
MOM	0.31%	5.33	4	381.6	0.06		
Vacuum	0.00%	0.00	0		0.00	Longest period w/out a fault	326.44
Operations & Analy	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		
UES	0.00%	0.00	0		0.00		
Utilities	0.14%	2.40	1	1526.4	0.02		
Electrical - APS	0.00%	0.00	0		0.00		
Electrical - ANL	0.14%	2.40	1	1526.4	0.02		
Cooling - ANL	0.00%	0.00	0		0.00		
Other	0.02%	0.37	1	1526.4	0.02		
Unidentified	0.10%	1.78	4	381.6	0.06		
APS-U	0.00%	0.00	0		0.00		
Total	1.64%	28.15	23	73.6	0.33		

Updated 8/21/2019