

18 - Field Period Assembly
Job: 1802 - FP Assy Oversight/Support/VOLA
 Oversight and Supervision

Activity	MLC	Duration (hrs)	Baseline (Start)	Baseline (End)	SPN	Task	%	Proposed	Baseline
1802MAY	May start	20	18MAY17	18MAY17	1,335	LOE	15,000.00		
1802MAY22	ORNL Title III field period assay station 2	320	18OCT17	19FEB18	4	LOE	152,428.16		
1802MAY23	ORNL Title III field period assay station 3	310	18MAR18	18JUN18	0	LOE	117,143.82		
1802MAY25	ORNL Title III field period assay station 1	300	18OCT17	19NOV18	0	LOE	122,171.24		
R1802001	Monday, Eng Super FY17	100	18MAY17	18SEP17	1,249	LOE	6,421.80		
R1802003	Monday, Eng Super FY18	200	18OCT17	18FEB18	999	LOE	102,213.60		
R1802004	Monday, Eng Super FY19	287	18OCT17	19NOV18	718	LOE	194,695.10		
R1802005	Monday, Eng Super FY19 (2nd shift approx. 5 hrs)	200	18JAN17	19NOV18	2	718	LOE	134,631.32	
R1802006	FPA Management FY17	100	18MAY17	18SEP17	1,249	LOE	117,245.60		
R1802007	FPA Management FY18	200	18OCT17	18FEB18	999	LOE	277,253.54		
R1802008	FPA Management FY19	287	18OCT17	19NOV18	718	LOE	322,131.85		
R1802010	HP Coverage in the FY18 TC LOE FY18	100	18MAY17	18SEP17	1,249	LOE	60,422.80		
R1802015	HP Coverage in the FY18 TC LOE FY19	200	18OCT17	18FEB18	999	LOE	149,857.40		
R1802016	HP Coverage in the FY18 TC LOE FY19	160	18OCT17	18JUN18	830	LOE	194,271.28		
R1802017	Station 2 operations	0	18JUN18	18JUN18	0		0.00		

Station 2 procedures, JJA, ACC, Training, Prep

R1802207	Procedures written & approved	14	12SEP17	18OCT17	0		0.00		
R1802209	JJA completed	6	18OCT17	18OCT17	0		0.00		
R1802211	Training needs identified & released	6	18OCT17	18OCT17	0		0.00		
R1802213	ACC review completed	2	18OCT17	18OCT17	0		0.00		
R1802215	Pre-job brief completed	1	22OCT17	22OCT17	0		0.00		
R1802217	Station 2 operations	1	23OCT17	23OCT17	0		0.00		

Station 3 procedures, JJA, ACC, Training, Prep

R1802307	Procedures written & approved	19	15JAN18	18JAN18	56		0.00		
R1802309	JJA completed	6	18FEB18	18FEB18	56		0.00		
R1802311	Training needs identified & released	6	18FEB18	18FEB18	56		0.00		
R1802313	ACC review completed	6	22FEB18	22FEB18	56		0.00		
R1802315	Pre-job brief completed	6	22FEB18	22FEB18	56		0.00		

Station 5 procedures, JJA, ACC, Training, Prep

R1802507	Procedures written & approved	14	14APR18	18MAY18	97		0.00		
R1802509	JJA completed	6	18MAY18	18MAY18	97		0.00		
R1802511	Training needs identified & released	6	18MAY18	18MAY18	97		0.00		
R1802513	ACC review completed	7	28JUN18	18JUN18	97		0.00		
R1802515	Pre-job brief completed	7	15JUN18	18JUN18	97		0.00		

General Assy Support

R1810003	LOE Crane support, the setup (2nd shift 1.2 hr)	200	18JAN17	19NOV18	2	718	LOE	139,243.30	
R1810001	LOE Crane support, future setup/ FY17	100	18MAY17	18SEP17	1,249	LOE	61,814.87		
R1810002	LOE Crane support, future setup/ FY18	200	18OCT17	18FEB18	999	LOE	165,823.83		
R1810004	LOE Crane support, future setup/ FY19	287	18OCT17	19NOV18	718	LOE	192,599.93		
R1810006	LOE Field Supervision for FY17	100	18MAY17	18SEP17	1,249	LOE	26,814.00		
R1810007	LOE Field Supervision for FY18	200	18OCT17	18FEB18	999	LOE	242,755.14		
R1810008	LOE Field Supervision for FY19	287	18OCT17	19NOV18	718	LOE	285,266.36		
R1810005	LOE Field Supervision for 2nd shift 1.2 hr	200	18JAN17	19NOV18	2	718	LOE	209,260.39	
R1810011	LOE Manpower opt FY17 1.5 hr EM & 1.8 hr TB	100	18OCT17	18SEP17	1,249	LOE	307,495.70		
R1810012	LOE Manpower opt FY18 1.5 hr EM & 1.8 hr TB	200	18OCT17	18FEB18	999	LOE	771,148.00		
R1810013	LOE Manpower opt FY19 1.5 hr EM & 1.8 hr TB	287	18OCT17	19NOV18	718	LOE	433,248.15		
R1810015	Misc M&S FY17	100	18MAY17	18SEP17	1,249	LOE	15,493.00		
R1810016	Misc M&S FY18	200	18OCT17	18FEB18	999	LOE	47,488.00		
R1810017	Misc M&S FY19	287	18OCT17	19NOV18	718	LOE	97,664.97		
R1810018	Station 1 operations	0	19NOV18	19NOV18	718		0.00		

Station 1-VV Prep (3rd surface component) FP1

R1810105	Install cooling lines & fluid conditioning lines	31	18MAY17	13JUN17	1	340		50,000.00	
R1810107	Verify install of VVC lines, headers, manifolds	5	14JUN17	28JUN17	1	340		7,669.00	
R1810108	Perform final acceptance testing (FAC flow test)	5	28JUN17	28JUN17	1	340		7,669.00	
R1810115	Purchase parts	20	21JUN17	18JUL17	1	320		5,154.00	
R1810109	Loop termination & verification	18	23AUG17	18SEP17	1	187		27,602.40	
R1810112	Trim seal plates	2	18OCT17	18OCT17	1	275		3,204.40	
R1810110	Install Final Interlock Enclosures & Meas	4	18JAN18	18JAN18	1	116		6,400.00	
R1810111	Final Scan	4	15JAN18	18JAN18	1	116		6,400.00	
R1810114	Install heater tape on all removable ports	20	21JAN18	18FEB18	1	116		16,022.00	
R1810113	Prepare & transfer completed VV to holding area	2	18FEB18	18FEB18	1	116		3,204.40	

Station 1-VV Prep (3rd surf component) FP2

R1810203	Misc Hardware	170	15JUN17	18FEB18	1,163	LOE	2,264.38		
R1810209	Install conditioning lines to vac val	15	18MAY17	18MAY17	1	227		23,007.00	
R1810211	Verify install of VVC lines, headers, manifolds	16	23MAY17	18JUN17	1	227		27,369.00	
R1810213	Verify install of VVC lines, headers, manifolds	5	14JUN17	28JUN17	1	390		7,669.00	
R1810208	Perform final acceptance testing (FAC flow test)	5	28JUN17	28JUN17	1	390		12,773.00	
R1810212	Trim seal plates	2	18OCT17	18OCT17	1	290		3,204.40	
R1810215	Loop termination & verification	18	28NOV17	21DEC17	1	238		28,820.00	
R1810216	Install Final Interlock Enclosures & Meas	4	18JAN18	18JAN18	1	239		6,400.00	
R1810217	Final Scan	4	18JAN18	18JAN18	1	239		6,400.00	
R1810214	Install heater tape on all removable ports	20	14JAN18	18FEB18	1	239		16,022.00	
R1810219	Prepare & transfer completed VV to holding area	2	18FEB18	18FEB18	1	239		3,204.40	

Station 1-VV Prep (3rd surf component) FP3

R1810303	Misc Hardware	139	18MAY17	28NOV17	1,209	LOE	2,271.80		
R1810304	Install dry knockout ports on vessel	12	18MAY17	18MAY17	1	450		18,468.00	
R1810305	Install heater tape on vertical ports	7	17MAY17	20MAY17	1	450		10,736.40	
R1810307	Verify installation of heater tapes	1	28JUL17	28JUL17	1	442		1,523.80	
R1810309	Attach waste flowmeter lines	3	23JUL17	28JUL17	1	442		4,601.40	
R1810300	Install Temperature	3	25JUN17	27JUN17	1	227		4,601.40	
R1810311	Wind magnetic diagnostic sensors	14	15JUL17	28JUL17	1	219		21,473.20	
R1810313	Install process magnetic diagnostic sensors	3	21JUL17	28JUL17	1	219		4,601.40	
R1810315	Verify installation magnetic diagnostic sensors	4	18AUG17	18AUG17	1	219		6,135.20	
R1810317	Install local AC (2nd thermocouples)	5	18AUG17	18AUG17	1	206		7,669.00	
R1810319	Verify installation of local AC	2	14AUG17	17AUG17	1	206		2,605.60	
R1810321	Install conditioning lines to vac val	10	28AUG17	18AUG17	1	206		23,007.00	
R1810323	Wind conditioning lines	10	14SEP17	17SEP17	1	206		24,540.00	
R1810325	Verify install of VVC lines, headers, manifolds	5	18SEP17	24SEP17	1	206		7,669.00	
R1810308	Perform final acceptance testing (FAC flow test)	5	25SEP17	18OCT17	1	206		7,727.40	
R1810312	Trim seal plates	2	18OCT17	18OCT17	1	360		3,204.40	
R1810301	Loop termination & verification	18	18JAN18	18JAN18	1	290		28,820.00	
R1810302	Install Final Interlock Enclosures & Meas	4	28JAN18	28JAN18	1	290		6,400.00	
R1810329	Final Scan	4	18FEB18	18FEB18	1	290		6,400.00	
R1810314	Install heater tape on all removable ports	20	19FEB18	18MAY18	1	275		16,022.00	
R1810321	Prepare & transfer completed VV to holding area	2	14MAY18	17MAY18	1	275		3,204.40	

Station 1-Spool pieces (3) (spacers)

R18101503	Atch/hydrogels, studs and coolant lines	17	18NOV16	28NOV16	1	288		28,036.40	
R18101504	Install Final Interlock Enclosures & Meas	2	28NOV16	01DEC16	1	288		3,204.40	



Station 2 Tiers Development	Activity Description	Duration (Days)	Start Date	End Date	SPN	Total Cost (\$)	% Complete	Proposed Budget (\$)
R1910-2000	Trial training and align test on prototype	3	13JUL27	13JUL27	1	40	0.00	6,000.00
R1910-2001	Perform final fit alignment on A1-A2	7	13JUL27	13JUL27	1	29	0.00	20,100.00
R1910-2002	Perform development tests on A1-A2	30	13JUL27	13AUG07	1	15	0.00	48,600.00
R1910-2003	Alignment mechanisms, metro setup & calibration	26	13AUG07	13SEP02	1	15	0.00	56,240.00
R1910-2004	Process alignment mechanisms, fabricate, ship	40	13AUG07	13OCT07	1	17	0.00	62,530.00
R1910-2005	Develop procedures for training tests	4	13AUG07	13AUG07	1	20	0.00	4,100.00
R1910-2006	Weld final three working in job 1421	10	13AUG07	13AUG07	1	7	0.00	83,200.00
R1910-2007	Building test A-B	7	13AUG07	13AUG07	1	27	0.00	8,900.00
R1910-2008	Building test B-C	7	13AUG07	13AUG07	1	27	0.00	8,900.00
R1910-2009	Determine fixture specifications	11	13AUG07	13AUG07	1	21	0.00	19,420.00
R1910-2001	Misc Hardware and hardware network (C2 test)	260	13MAY17	13MAY18	1	1,000	LOE	85,510.00
Pre-Measuring and Prep Checks								
Pre measurement of MCP A1-B1-C1								
S21-1-01	Verify mating MC's A1-B1-C1	4	20AUG07	20AUG07	1	1	0.00	4,100.00
S21-1-02	Epox paint at close fitting interfacing surface	3	20AUG07	20AUG07	1	1	0.00	4,600.00
S21-1-03	Set the A1 on permanent fixture "B" side flange down	1	20AUG07	20AUG07	1	1	0.00	1,000.00
S21-1-04	Align to the central axes locking into B	2	20AUG07	20AUG07	1	0.00	0.00	0.00
S21-1-05	Measure moments on fixture and walls	7	20AUG07	20AUG07	1	0.00	0.00	0.00
S21-1-06	Measure locking ball measurements	1	20AUG07	20AUG07	1	0.00	0.00	0.00
S21-1-07	Scan the "A" flange of the Type-A1 coil	1	20AUG07	20AUG07	1	0.00	0.00	0.00
S21-1-08	Remove A1 coil from stand	1	20AUG07	20AUG07	1	1,500.00	0.00	1,500.00
S21-1-09	Measure B1 "X" flange	14	21AUG07	21AUG07	1	1	0.00	3,000.00
S21-1-10	Measure C1 "X" flange	13	21AUG07	21AUG07	1	1	0.00	3,000.00
S21-1-11	Measure Type A1-A2 "A" flange	13	21AUG07	21AUG07	1	1	0.00	3,170.00
S21-1-12	Conformal adhesive stress test by thickness	4	21AUG07	21AUG07	1	1	0.00	4,600.00
S21-1-13	Perform metrology setup and checks	2	21AUG07	21AUG07	1	0.00	0.00	0.00
S21-1-14	Ready for Measurement A1-B1-C1	0	21AUG07	21AUG07	1	1	0.00	0.00
Pre measurement of MCP A2-B2-C2								
S21-2-01	Measure B2 "X" flange	14	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-2-11	Measure C2 "X" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-2-12	Measure Type A1-A2 "A" flange	13	21AUG07	21AUG07	1	4	0.00	3,000.00
S21-2-13	Verify mating MC's of MCP will come together	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-2-14	Epox paint at close fitting interfacing surface	3	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-2-15	Conformal adhesive stress test by thickness	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-2-16	Perform metrology setup and checks	2	21AUG07	21AUG07	1	4	0.00	0.00
S21-2-17	Ready for Measurement A2-B2-C2	0	21AUG07	21AUG07	1	4	0.00	0.00
Pre measurement of MCP A3-B3-C3								
S21-3-01	Verify mating MC's of MCP will come together	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-3-02	Epox paint at close fitting interfacing surface	3	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-3-03	Set the A3 on permanent fixture "A" side flange down	1	21AUG07	21AUG07	1	4	0.00	1,000.00
S21-3-04	Align to the central axes locking into B	2	21AUG07	21AUG07	1	4	0.00	0.00
S21-3-05	Measure moments on fixture and walls	7	21AUG07	21AUG07	1	4	0.00	0.00
S21-3-06	Measure locking ball measurements	1	21AUG07	21AUG07	1	4	0.00	0.00
S21-3-07	Scan the B flange of A3	1	21AUG07	21AUG07	1	4	0.00	0.00
S21-3-08	Remove A3 move to holding area	1	21AUG07	21AUG07	1	4	0.00	1,600.00
S21-3-09	Measure B3 "X" flange	14	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-3-11	Measure C3 "X" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-3-12	Measure Type A3-A4 "A" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-3-13	Conformal adhesive stress test by thickness	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-3-14	Perform metrology setup and checks	2	21AUG07	21AUG07	1	4	0.00	0.00
S21-3-15	Ready for Measurement A3-B3-C3	0	21AUG07	21AUG07	1	4	0.00	0.00
Pre measurement of MCP A4-B4-C4								
S21-4-01	Measure B4 "X" flange	14	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-4-11	Measure C4 "X" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-4-12	Measure Type A4-A5 "A" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-4-13	Verify mating MC's of MCP will come together	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-4-14	Epox paint at close fitting interfacing surface	3	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-4-15	Conformal adhesive stress test by thickness	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-4-16	Perform metrology setup and checks	2	21AUG07	21AUG07	1	4	0.00	0.00
S21-4-17	Ready for Measurement A4-B4-C4	0	21AUG07	21AUG07	1	4	0.00	0.00
Pre measurement of MCP A5-B5-C5								
S21-5-01	Measure B5 "X" flange	14	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-5-11	Measure C5 "X" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-5-12	Measure Type A5-A6 "A" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-5-13	Verify mating MC's of MCP will come together	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-5-14	Epox paint at close fitting interfacing surface	3	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-5-15	Conformal adhesive stress test by thickness	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-5-16	Perform metrology setup and checks	2	21AUG07	21AUG07	1	4	0.00	0.00
S21-5-17	Ready for Measurement A5-B5-C5	0	21AUG07	21AUG07	1	4	0.00	0.00
Pre measurement of MCP A6-B6-C6								
S21-6-01	Measure B6 "X" flange	14	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-6-11	Measure C6 "X" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-6-12	Measure Type A6-A7 "A" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-6-13	Verify mating MC's of MCP will come together	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-6-14	Epox paint at close fitting interfacing surface	3	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-6-15	Conformal adhesive stress test by thickness	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-6-16	Perform metrology setup and checks	2	21AUG07	21AUG07	1	4	0.00	0.00
S21-6-17	Ready for Measurement A6-B6-C6	0	21AUG07	21AUG07	1	4	0.00	0.00
Pre measurement of MCP A7-B7-C7								
S21-7-01	Measure B7 "X" flange	14	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-7-11	Measure C7 "X" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-7-12	Measure Type A7-A8 "A" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-7-13	Verify mating MC's of MCP will come together	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-7-14	Epox paint at close fitting interfacing surface	3	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-7-15	Conformal adhesive stress test by thickness	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-7-16	Perform metrology setup and checks	2	21AUG07	21AUG07	1	4	0.00	0.00
S21-7-17	Ready for Measurement A7-B7-C7	0	21AUG07	21AUG07	1	4	0.00	0.00
Pre measurement of MCP A8-B8-C8								
S21-8-01	Measure B8 "X" flange	14	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-8-11	Measure C8 "X" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-8-12	Measure Type A8-A9 "A" flange	13	21AUG07	21AUG07	1	4	0.00	3,200.00
S21-8-13	Verify mating MC's of MCP will come together	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-8-14	Epox paint at close fitting interfacing surface	3	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-8-15	Conformal adhesive stress test by thickness	4	21AUG07	21AUG07	1	4	0.00	4,600.00
S21-8-16	Perform metrology setup and checks	2	21AUG07	21AUG07	1	4	0.00	0.00
S21-8-17	Ready for Measurement A8-B8-C8	0	21AUG07	21AUG07	1	4	0.00	0.00
Station 2-ARC Sub Assy A1-B1-C1								
Pre-assembly A1-A2								
S21-9-01	ASSEMBLY A1-A2	0	21OCT07	21OCT07	1	0	0.00	0.00
S21-9-02	Place A1 "B" side down, Clean flange	2	21OCT07	21OCT07	1	0	0.00	3,000.00
S21-9-03	Align to the central axes locking into B	1	21OCT07	21OCT07	1	0	0.00	0.00
S21-9-04	Measure moments on fixture & walls	2	21OCT07	21OCT07	1	0	0.00	0.00
S21-9-05	Place stress test indicator on A1-A2 top	1	21OCT07	21OCT07	1	0	0.00	800.00
S21-9-06	Install all indicators on the MC to see deflec	1	21OCT07	21OCT07	1	0	0.00	3,200.00
S21-9-07	Lower mating A1 module coil into position	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-9-08	Measure moments bottom coil, Jack to 50%	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-9-09	Using 3-point, position the test coil to 50%	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-9-10	Torque to 50%	2	21OCT07	21OCT07	1	0	0.00	3,200.00
S21-9-11	Make "waggle" test - tighten ball and neck	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-9-12	Measure the locking balls on both coils	2	21OCT07	21OCT07	1	0	0.00	0.00
S21-9-13	Adjust stress locally, Re-torque all studs to 50%	3	21OCT07	21OCT07	1	0	0.00	4,800.00
S21-9-14	Install A1-A2 connector hardware	2	21OCT07	21OCT07	1	0	0.00	3,200.00
S21-9-15	Remove sub-assembly, Identify locations	1	21OCT07	21OCT07	1	0	0.00	1,600.00
A2-A3 Assembly								
S21-10-01	Place Type "A" side down, Clean flange	2	21OCT07	21OCT07	1	0	0.00	3,200.00
S21-10-02	Align to the central axes locking into B	1	21OCT07	21OCT07	1	0	0.00	0.00
S21-10-03	Measure moments on fixture & walls	2	21OCT07	21OCT07	1	0	0.00	0.00
S21-10-04	Place the stress test stress on the coil	2	21OCT07	21OCT07	1	0	0.00	3,200.00
S21-10-05	Start with the deflection & place on wing	1	21OCT07	21OCT07	1	0	0.00	400.00
S21-10-06	Lower the Type-B coil onto the Type-A coil	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-07	Measure moments on A coil, Jack to 100%	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-08	Install all indicators for a positioning	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-09	Perform the X-Y positioning of the B coil	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-10	Install remaining metal stress torque to 50%	2	21OCT07	21OCT07	1	0	0.00	3,200.00
S21-10-11	Make "waggle" test - tighten ball and neck	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-12	Measure the locking balls on both coils	2	21OCT07	21OCT07	1	0	0.00	0.00
S21-10-13	Adjust stress locally, Re-torque to 50%	3	21OCT07	21OCT07	1	0	0.00	4,800.00
S21-10-14	Install stress sensors, Re-torque to 50%	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-15	Measure the locking balls on both coils	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-16	Make "waggle" test - tighten ball and neck	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-17	Measure the locking balls on both coils	1	21OCT07	21OCT07	1	0	0.00	0.00
S21-10-18	Adjust stress locally, Re-torque all studs to 50%	3	21OCT07	21OCT07	1	0	0.00	4,800.00
S21-10-19	Install stress sensors, Re-torque to 50%	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-20	Measure the locking balls on both coils	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-21	Make "waggle" test - tighten ball and neck	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-22	Measure the locking balls on both coils	1	21OCT07	21OCT07	1	0	0.00	0.00
S21-10-23	Adjust stress locally, Re-torque all studs to 50%	3	21OCT07	21OCT07	1	0	0.00	4,800.00
S21-10-24	Install stress sensors, Re-torque to 50%	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-25	Measure the locking balls on both coils	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-26	Make "waggle" test - tighten ball and neck	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-27	Measure the locking balls on both coils	1	21OCT07	21OCT07	1	0	0.00	0.00
S21-10-28	Adjust stress locally, Re-torque all studs to 50%	3	21OCT07	21OCT07	1	0	0.00	4,800.00
S21-10-29	Install stress sensors, Re-torque to 50%	1	21OCT07	21OCT07	1	0	0.00	1,600.00
S21-10-30								

Station 3 Disengagement/General	Activity Description	Duration (hrs)	Baseline (hrs)	Baseline (hrs)	SPM	Task (hrs)	% (hrs)	Proposed (hrs)
R1810-3102	Place M3	60	63M49P6	63JUL48	1	1,000		6,540.00
R1810-3104	Procedure 3 legged actuator system	20	61OCT07	20C17	1	134		56,240.00
R1810-3106	Load floor mounted tracks and VV base support	3	26OCT07	20C17	1	141		7,840.00
R1810-3108	Procedure 4 legged actuator IM Fair	8	61OCT07	20C17	1	120		7,840.00
R1810-3112	Load Test 3 legged actuator IM Fair	8	20OCT07	61NOV07	1	120		10,254.00
R1810-3150	Final New Haps	4	61OCT07	61NOV07	1	141		5,174.00
R1810-3152	Install station 3 platform (B) assembly	4	26NOV07	20C17	1	111		22,062.00
R1810-3157	Test out station 3 equipment and procedures	4	26NOV07	61DEC07	1	111		13,080.00
R1810-3159	Design study of final hand period easy	2	64DEC07	61DEC07	1	111		62,300.00



Station 3 Assembly M3 Colls and VVSA FPM2	Activity Description	Duration (hrs)	Baseline (hrs)	Baseline (hrs)	SPM	Task (hrs)	% (hrs)	Proposed (hrs)
R1810-3101	Install Station 3 site measurements	3	63NOV06	63NOV06	1	4		7,741.00
R1810-3102	Install floor mounted tracks and VV base support	5	64NOV06	19NOV06	1	4		8,643.00
R1810-3104	Establish the M3CP CS baseline	2	11NOV06	19NOV06	1	4		3,260.00
R1810-3106	Install M3CP support cart assemblies	4	13NOV06	19NOV06	1	4		6,550.00
R1810-3108	Verify cart motion	2	19NOV06	29NOV06	1	4		3,260.00
R1810-3110	Install adjuster bar support restraint	0	21NOV06	29NOV06	1	4		0.00
R1810-3112	Position M3 MCP on the cart assembly	0	21NOV06	29NOV06	1	4		0.00
R1810-3114	Secure M3 MCP on support cart base	2	62DEC06	61DEC06	1	0		3,260.00
R1810-3116	Measure movements on M3 MCP and walls	5	64DEC06	19DEC06	1	0		6,560.00
R1810-3118	Site positioning step on the cart	2	11DEC06	19DEC06	1	0		1,640.00
R1810-3120	Move right base support cart to its final position	1	12DEC06	19DEC06	1	0		824.00
R1810-3122	Lift the right side MCP and position	1	19DEC06	19DEC06	1	0		1,640.00
R1810-3124	Temporary fasteners bring the parts together	0	11DEC06	19DEC06	1	0		0.00
R1810-3126	Air/Loc Wedgement leveler to take load	0	19DEC06	19DEC06	1	0		0.00
R1810-3128	Install temp scaffolding to install flange line	1	19DEC06	19DEC06	1	0		1,640.00
R1810-3130	Install bolts and stems	1	19DEC06	19DEC06	1	0		1,640.00
R1810-3132	Tighten flange fasteners to 50%	1	19DEC06	19DEC06	1	0		1,640.00
R1810-3134	Perform metrology measurements	5	19DEC06	61JAN06	1	0		6,560.00
R1810-3136	Perform position adjust on right side MCP	2	61JAN06	61JAN06	1	0		3,260.00
R1810-3138	Verify position of the VV support hanger	3	61JAN06	19JAN06	1	0		6,560.00
R1810-3140	Remove flange hardware and temp platforms	1	19JAN06	19JAN06	1	0		1,640.00
R1810-3142	Eliminate measurements on the MCP's heads	2	14JAN06	19JAN06	1	0		2,740.00
R1810-3144	Place all of the base screens	2	16JAN06	19JAN06	1	0		3,260.00
R1810-3146	Determine laser alignment	1	21JAN06	21JAN06	1	0		1,640.00
R1810-3148	Mount the laser on the screens	1	21JAN06	21JAN06	1	0		1,640.00
R1810-3150	Disengage MCP's to move the M3 MCP	1	21JAN06	21JAN06	1	0		1,640.00
R1810-3152	Remove both MCP's	2	21JAN06	21JAN06	1	0		3,260.00
R1810-3154	Remove the adjuster bar support from left side	0	21JAN06	21JAN06	1	0		0.00
R1810-3156	Install VV NB port support stand	2	21JAN06	21JAN06	1	0		3,260.00
R1810-3158	Install VVSA to base support	1	21JAN06	21JAN06	2	0		1,640.00
R1810-3160	Secure the VVSA to base & NB port support stand	1	21JAN06	21JAN06	2	0		3,260.00
R1810-3162	Install flange preparation components on the VV	0	61FEB06	61FEB06	2	0		0.00
R1810-3164	Position Air/Loc Wedgement in lower position	0	61FEB06	61FEB06	2	0		0.00
R1810-3166	Move the M3 MCP over the VV	1	61FEB06	61FEB06	2	0		3,260.00
R1810-3168	Remove the M3 MCP to the left side	0	61FEB06	61FEB06	2	0		0.00
R1810-3170	Make adjustments to properly align MCP	1	61FEB06	61FEB06	2	0		1,640.00
R1810-3172	Transfer load to the Air/Loc Wedgement leveler	0	61FEB06	61FEB06	2	0		0.00
R1810-3174	Move the MCP to the left side	0	61FEB06	61FEB06	2	0		0.00
R1810-3176	Position Air/Loc Wedgement lowered position	0	61FEB06	61FEB06	2	0		0.00
R1810-3178	Move the right MCP over the VV	1	61FEB06	61FEB06	2	0		3,260.00
R1810-3180	Remove the M3 MCP to the final position	0	61FEB06	61FEB06	2	0		0.00
R1810-3182	Engage the pre-installed Type-A flange bushings	1	61FEB06	61FEB06	2	0		824.00
R1810-3184	Temporary fasteners bring the parts together	0	61FEB06	61FEB06	2	0		0.00
R1810-3186	Air/Loc Wedgement leveler to take the load	1	61FEB06	61FEB06	2	0		6,560.00
R1810-3188	Remove laser screens	0	61FEB06	61FEB06	2	0		0.00
R1810-3190	Install temp scaffolding to install flange line	2	61FEB06	61FEB06	2	0		6,560.00
R1810-3192	Install bolts, nuts and aligned weld stems	1	61FEB06	61FEB06	2	0		3,260.00
R1810-3194	Tighten flange fasteners to 50%	1	19FEB06	19FEB06	2	0		1,640.00
R1810-3196	"Wiggle" test - Tighten bolt and nut check	1	19FEB06	19FEB06	2	0		1,640.00
R1810-3198	Perform metrology measurements	2	19FEB06	19FEB06	2	0		6,560.00
R1810-3200	Perform position adjustments right side MCP	2	19FEB06	19FEB06	2	0		6,560.00
R1810-3202	Remove SISCO actuator from right MCP	0	19FEB06	19FEB06	2	0		0.00
R1810-3204	Fit & install bushings	5	19FEB06	19FEB06	2	0		16,400.00
R1810-3206	Tighten neck, TDC, & Measure	1	19FEB06	19FEB06	2	0		1,640.00
R1810-3208	partially weld the inboard stem	4	29FEB06	29FEB06	2	0		24,736.00
R1810-3210	Final complete MC scan verify period alignment	2	29FEB06	29FEB06	2	0		6,560.00
R1810-3212	Attach VV permanent vertical supports	1	63MAR06	63MAR06	2	0		3,260.00
R1810-3214	Attach temporary VV vertical supports	1	63MAR06	63MAR06	2	0		1,640.00
R1810-3216	Transfer load to vertical supports	1	63MAR06	63MAR06	2	0		1,640.00
R1810-3218	Install VV vertical supports and align	1	63MAR06	63MAR06	2	0		6,560.00
R1810-3220	Prepare VVSA for transport	1	63MAR06	63MAR06	2	0		3,260.00
R1810-3222	Transfer the unit to the transfer support frame	1	63MAR06	63MAR06	2	0		6,560.00
R1810-3224	Transfer Period 3 Station 3 to M3CP TC	1	63MAR06	63MAR06	2	0		3,260.00

Item No.	Activity Description	Duration (hrs)	Resource	Station	SPN	Qty	%	Proposed
Setup/Preparation/General								
R1910-0501	MTM NCR hardware re-purchase	25	01JUL87	05AUG08	1	42		54,000.00
R1910-0502	Microprocessors/CCPI's	10	01JUL88	13JUL88	1	47		47,000.00
R1910-0503	networking network in NCSX TIC	10	13JUL88	23JUL88	1	47		21,975.00
R1910-0504	Wax for tooling	10	25AUG07	08SEP09	1	42		0.00
R1910-0505	Weld wire & welding supplies	20	01JUL88	08AUG09	1	42		18,000.00
R1910-0506	Transfer Box (single) & procedures	5	06AUG08	13AUG08	1	42		12,675.00
R1910-0507	Check 3 end interface adjust holes	12	13AUG08	28AUG08	1	42		30,720.24
R1910-0508	Remove installed front wiring	6	28AUG08	08SEP09	1	42		15,361.12
Station 5 - Final TP Assy (PNS) (in NCSX TIC)								
R1910-0509	Begin Station 5 Operations	0	29OCT08	1	0			0.00
S51-1-01	cut off short dome	2	30OCT08	31OCT08	1	5		3,200.00
S51-1-02	install insulation system around all ports	0	03NOV08	31OCT08	1	5		0.00
S51-1-03	install heat tape and thermocouples on all ports	0	03NOV08	31OCT08	1	5		0.00
S51-2-01	install period support frames	2	03NOV08	04NOV08	1	5		3,200.00
S51-2-02	install FPA on support stand	2	05NOV08	06NOV08	1	5		3,200.00
S51-2-03	install external working platforms	4	07NOV08	12NOV08	1	5		6,500.00
S51-2-04	install internal VV working platforms	3	13NOV08	17NOV08	1	5		4,547.00
S51-3-01	install the dome port and right side	2	19NOV08	19NOV08	1	5		3,200.00
S51-3-02	install small dome ports remaining circ ports	30	20NOV08	13JAN09	1	5		49,476.00
S51-3-03	Loak check each port after it is welded	30	15DEC08	03FEB09	1	5		49,476.00
S51-4-01	install MC coolant lines on each MC	16	23JAN09	19FEB09	1	5		26,567.20
S51-4-01	install MC lead connections to MC's (in job 782)	0	19FEB09	19FEB09	1	5		0.00
S51-4-02	install MC coolant lines on each MC	16	19FEB09	25FEB09	1	5		19,700.00
S51-5-03	Platforms may need to be altered	2	24FEB09	25FEB09	2	5		4,547.00
S51-6-01	Route 2 TF coils over the MC on the right side	1	29FEB09	29FEB09	2	5		3,200.00
S51-6-02	Attach the temp support at end of Type C MC	1	27FEB09	27FEB09	2	0		1,600.20
S51-6-03	Lever leveler post disengage base of MC right sid	0	02MAR09	27FEB09	2	5		0.00
S51-6-04	install TF support brackets	1	09MAR09	09MAR09	2	5		3,200.00
S51-6-05	Secure Five TF Assy	1	02MAR09	09MAR09	2	5		1,600.20
S51-6-06	install TF support brackets	1	04MAR09	04MAR09	2	5		3,200.00
S51-6-07	Secure 2nd TF coil	1	09MAR09	09MAR09	2	5		1,600.20
S51-6-08	install machine support plates	0	09MAR09	09MAR09	2	5		0.00
S51-6-09	Reinstall leveler post	0	09MAR09	09MAR09	2	5		0.00
S51-6-1	installed one side of the TF support brackets	1	09MAR09	09MAR09	2	5		1,600.20
S51-7-01	The TF installation on the left side	0	09MAR09	09MAR09	2	5		21,430.00
S51-8-01	Perform a frug check of the four TF coils	1	23MAR09	23MAR09	2	5		8,200.00
S51-8-01	Task weld the left and right port 4's	2	24MAR09	24MAR09	2	5		3,200.00
S51-8-02	install boots on both port 4's	2	27MAR09	27MAR09	2	5		6,500.00
S51-10-01	install PF coil support structure	4	28MAR09	31MAR09	2	5		13,103.00
S51-11-01	install MC coolant manifold	2	01APR09	02APR09	2	5		4,547.00
S51-11-02	Connect MC coolant lines to the manifold	10	02APR09	15APR09	2	5		32,000.00
S51-12-01	install Rogowski coils	3	17APR09	21APR09	2	5		8,200.00
S51-13-01	Obtain set of Period 1 edge fiducial positions	2	22APR09	23APR09	2	5		0.00
S51-13-02	align to tooling balls on each MCSP	1	24APR09	24APR09	2	5		0.00
S51-13-03	bring the VV into proper alignment	2	27APR09	28APR09	2	5		6,500.00
S51-13-04	install or identify three primary fiducials	1	29APR09	29APR09	2	5		3,200.00
S51-13-05	Make a final measurement of all fiducials	2	30APR09	30APR09	2	5		0.00
S51-13-11	Check Assembly (Bois, etc)	3	04MAY09	05MAY09	2	5		8,200.00
S51-13-12	Check Diagnostics (Loops, Thermocouples)	2	07MAY09	08MAY09	2	5		6,200.00
S51-13-13	Check manifolds (pressure, flow, etc.)	3	11MAY09	13MAY09	2	5		8,200.00
S51-13-14	Check 6 moduls (voltage etc)	3	14MAY09	16MAY09	2	5		8,200.20
S51-13-15	Check 10 coils (voltage etc)	2	19MAY09	20MAY09	2	5		4,547.00
S51-13-16	Check TF coils (voltage etc)	3	21MAY09	23MAY09	2	5		8,200.20
S51-14-01	install cover (rigging to completed Period Assy)	1	27MAY09	28MAY09	2	5		3,200.00
S51-14-02	Remove platforms	1	28MAY09	28MAY09	2	5		1,600.20
S51-14-03	Transfer Period 1 to Station 6 in NCSX TIC	1	29MAY09	29MAY09	2	5		3,200.00
Station 5 - Final TP Assy (PNS) (in NCSX TIC)								
S51-1-01	cut off short dome	2	13MAY09	13MAY09	1	5		3,200.00
S51-1-02	install insulation system around all ports	0	16MAY09	13MAY09	1	5		0.00
S51-1-03	install heat tape and thermocouples on all ports	0	16MAY09	13MAY09	1	5		0.00
S51-2-01	install period support frames	2	16MAY09	16MAY09	1	5		3,200.00
S51-2-02	install FPA on support stand	2	16MAY09	16MAY09	1	5		3,200.00
S51-2-03	install external working platforms	4	20MAY09	20MAY09	1	5		6,500.00
S51-2-04	install internal VV working platforms	3	20MAY09	20MAY09	1	5		4,547.00
S51-3-01	install the dome port and right side	2	20MAY09	20MAY09	1	5		3,200.00
S51-3-02	install small dome ports remaining circ ports	30	02JUN09	13MAY09	1	5		49,476.00
S51-3-03	Loak check each port after it is welded	30	23MAY09	04JUN09	1	5		49,476.00
S51-4-01	install MC coolant lines on each MC	16	26MAY09	16JUN09	2	5		26,567.20
S51-4-01	install MC lead connections on each of the MC's	1	17JUN09	17JUN09	2	5		0.00
S51-5-02	install MC coolant lines on each MC	6	16JUN09	20JUN09	2	5		19,700.00
S51-5-03	Platforms may need to be altered	1	26JUN09	26JUN09	2	5		4,547.00
S51-6-01	Route 2 TF coils over the MC on the right side	1	29JUN09	29JUN09	2	5		3,200.00
S51-6-02	Attach the temp support at end of Type C MC	1	30JUN09	30JUN09	2	5		1,600.20
S51-6-03	Lever leveler post disengage base of MC right sid	0	01JUL09	30JUN09	2	5		0.00
S51-6-04	install TF support brackets	1	01JUL09	01JUL09	2	5		3,200.00
S51-6-05	Secure Five TF Assy	1	02JUL09	02JUL09	2	5		1,600.20
S51-6-06	install TF support brackets	1	06JUL09	06JUL09	2	5		3,200.00
S51-6-07	Secure 2nd TF coil	1	07JUL09	07JUL09	2	5		1,600.20
S51-6-08	install machine support plates	0	08JUL09	08JUL09	2	5		0.00
S51-6-09	Reinstall leveler post	0	10JUL09	08JUL09	2	5		0.00
S51-6-1	installed one side of the TF support brackets	1	10JUL09	08JUL09	2	5		1,600.20
S51-7-01	The TF installation on the left side	0	13JUL09	20JUL09	2	5		21,430.00
S51-8-01	Perform a frug check of the four TF coils	1	21JUL09	20JUL09	2	5		8,200.00
S51-8-01	Task weld the left and right port 4's	1	24JUL09	24JUL09	2	5		3,200.00
S51-8-02	install boots on both port 4's	2	27JUL09	28JUL09	2	5		6,500.00
S51-10-01	install PF coil support structure	4	28JUL09	02AUG09	2	5		13,103.00
S51-11-01	install MC coolant manifold	2	04AUG09	04AUG09	2	5		4,547.00
S51-11-02	Connect MC coolant lines to the manifold	10	06AUG09	18AUG09	2	5		32,000.00
S51-12-01	install Rogowski coils	3	20AUG09	20AUG09	2	5		8,200.00
S51-13-01	Obtain set of Period 1 edge fiducial positions	2	28AUG09	31AUG09	2	5		0.00
S51-13-02	align to tooling balls on each MCSP	1	01SEP09	01SEP09	2	5		0.00
S51-13-03	bring the VV into proper alignment	2	04SEP09	05SEP09	2	5		6,500.00
S51-13-04	install or identify three primary fiducials	1	04SEP09	04SEP09	2	5		3,200.00
S51-13-05	Make a final measurement of all fiducials	2	08SEP09	08SEP09	2	5		0.00
S51-13-11	Check Assembly (Bois, etc)	3	10SEP09	11SEP09	2	5		8,200.00
S51-13-12	Check Diagnostics (Loops, Thermocouples)	2	15SEP09	16SEP09	2	5		6,200.00
S51-13-13	Check manifolds (pressure, flow, etc.)	3	17SEP09	21SEP09	2	5		8,200.00
S51-13-14	Check 6 moduls (voltage etc)	3	20SEP09	20SEP09	2	5		8,200.20
S51-13-15	Check 10 coils (voltage etc)	2	23SEP09	23SEP09	2	5		4,547.00
S51-13-16	Check TF coils (voltage etc)	3	25SEP09	28SEP09	2	5		8,200.20
S51-14-01	install cover (rigging to completed Period Assy)	1	01OCT09	01OCT09	2	5		3,200.00
S51-14-02	Remove platforms	1	02OCT09	02OCT09	2	5		1,600.20
S51-14-03	Transfer Period 2 to Station 6 in NCSX TIC	1	03OCT09	03OCT09	2	5		3,410.00
Station 5 - Final TP Assy (PNS) (in NCSX TIC)								
S51-1-01	cut off short dome	1	08AUG09	08AUG09	2	0		3,200.00
S51-1-02	install insulation system around all ports	0	10AUG09	08AUG09	2	0		0.00
S51-1-03	install heat tape and thermocouples on all ports	0	10AUG09	08AUG09	2	0		0.00
S51-2-01	install period support frames	2	10AUG09	10AUG09	2	0		3,200.00
S51-2-02	install FPA on support stand	1	11AUG09	11AUG09	2	0		3,200.00
S51-2-03	install external working platforms	2	12AUG09	15AUG09	2	0		6,500.00
S51-2-04	install internal VV working platforms	2	16AUG09	17AUG09	2	0		4,547.00
S51-3-01	install the dome port and right side	1	16AUG09	16AUG09	2	0		3,200.00
S51-3-02	install small dome ports remaining circ ports	15	18AUG09	15JUL09	2	0		49,476.00
S51-4-01	install MC coolant lines on each MC	6	20AUG09	21JUL09	2	0		19,700.00
S51-4-01	install MC lead connections on each of the MC's	1	23AUG09	23AUG09	2	0		0.00
S51-5-02	install MC coolant lines on each MC	6	23AUG09	05AUG09	2	0		19,700.00
S51-5-03	Platforms may need to be altered	2	06AUG09	07AUG09	2	0		4,547.00
S51-6-01	Route 2 TF coils over the MC on the right side	1	10AUG09	10AUG09	2	0		3,200.00
S51-6-02	Attach the temp support at end of Type C MC	1	11AUG09	11AUG09	2	0		1,600.20
S51-6-03	Lever leveler post disengage base of MC right sid	0	13AUG09	11AUG09	2	0		0.00
S51-6-04	install TF support brackets	1	13AUG09	13AUG09	2	0		3,200.00
S51-6-05	Secure Five TF Assy	1	13AUG09	13AUG09	2	0		1,600.20
S51-6-06	install TF support brackets	1	14AUG09	14AUG09	2	0		3,200.00
S51-6-07	Secure 2nd TF coil	1	17AUG09	17AUG09	2	0		1,600.20
S51-6-08	install machine support plates	1	18AUG09	18AUG09	2	0		4,547.00
S51-6-09	Reinstall leveler post	0	19AUG09	18AUG09	2	0		0.00
S51-6-1	installed one side of the TF support brackets	1	19AUG09	18AUG09	2	0		1,600.20
S51-7-01	The TF installation on the left side	0	20AUG09	27AUG09	2	0		21