

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year									
									FY08	FY09	FY10	FY11	FY12	FY13				
cc 9450 - NCSX Fabrication (MIE)																		
1 - Stellarator Core Systems																		
12 - Vacuum Vessel Systems																		
Job: 1204 - VV Sys Procurements (nonVVSA)-DUDEK																		
Thermal Insulation																		
123-052		Fabricate&Deliver boot sheet metal parts r405209	65		01OCT08*	12JAN09	212	39,180.00										
122-051		Deliver Port Thermal Insulation pe7793	21*		01FEB08*	29FEB08	1,670	44,413.92										
122-030		Issue req,Bid & Award Pourable Insulation	25		01SEP10*	06OCT10	198	0.00										
122-036.9		Award Pourable Insulation	0			06OCT10	198	0.00										
122-037		Deliver Pourable Insulation	40		07OCT10	03DEC10	198	137,000.00										
Job: 1260 NB Transition Ducts- GORANSON																		
1260-90		Prep for PDR	65		30JUN08	30SEP08	318	30,200.00										
1260-95		PDR	0			30SEP08	318	0.00										
1260-100		Design Update and review	65		01OCT08*	12JAN09	318	99,486.80										
1260-110		FDR	0			12JAN09	318	0.00										
1260-120		Requisition, Bid and Award Duct contract	40		13JAN09	09MAR09	318	0.00										
1260-130		Fabr & deliver 3 port duct extensions incl suprts	260		01OCT09*	18OCT10	174	420,831.66										
1260-140		Title III	402		13JAN09	18AUG10	1,054	16,188.70										
Job: 1270 - Heater Control System-PPPL (tbd)																		
1270-30		Preliminary design	65		02FEB09*	01MAY09	244	46,618.64										
1270-40		PDR	0			01MAY09	244	0.00										
1270-50		Final Design	65		04MAY09	04AUG09	244	46,618.64										
1270-60		FDR	0			04AUG09	244	0.00										
1270-70		Procure Hardware	130		01MAR10*	31AUG10	107	348,434.48										
1270-80		Fabrication	130		01SEP10	14MAR11	107	72,225.29										
1270-90		Installation	65	2	15MAR11	14JUN11	107	127,753.12										
13 - Conventional Coils																		
Job: 1361 - TF Fabrication-KALISH																		
TF Title III and Fabrication Oversight																		
131-033C		Title III engr,inspection, support	214*		02JAN08A	30OCT08	1,499	151,764.17										
TF Fabrication Contract																		
1361C-108		Fab, Test & Deliver Coil #8	21*		31JAN08	28FEB08	497	4,720.00										
1361C-109		Fab, Test & Deliver Coil #9	1		24MAR08*	24MAR08	496	47,210.00										

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									FY08	FY09	FY10	FY11	FY12	FY13
1361C-110		Fab, Test & Deliver Coil #10	1		15APR08*	15APR08	496	47,210.00						
1361C-111		Fab, Test & Deliver Coil #11	1		07MAY08*	07MAY08	496	47,210.00						
1361C-112		Fab, Test & Deliver Coil #12	1		30MAY08*	30MAY08	496	47,210.00						
1361C-113		Fab, Test & Deliver Coil #13	1		23JUN08*	23JUN08	506	47,210.00						
1361C-114		Fab, Test & Deliver Coil #14	1		16JUL08*	16JUL08	506	47,210.00						
1361C-115		Fab, Test & Deliver Coil #15	1		07AUG08*	07AUG08	506	47,220.00						
1361C-116		Fab, Test & Deliver Coil #16	1		29AUG08*	29AUG08	506	47,220.00						
1361C-117		Fab, Test & Deliver Coil #17	1		23SEP08*	23SEP08	506	47,220.00						
1361C-118		Fab, Test & Deliver Coil #18	1		15OCT08*	15OCT08	506	47,220.00						
1351-195X	2	ALL TF COILS DELIVERED	0			15OCT08	506	0.00						
Job: 1302 - PF Design -CHRZANOWSKI														
1302-200		Complete PF Coil SRD	45*		03DEC07A	12FEB08	314	1,700.16						
1302-210		Update PF Coil SDD	101*		12SEP07A	12FEB08	320	850.08						
1302-240		Disposition PDR Chits	36*		02JAN08A	20FEB08	314	850.08						
1302-214		Prepare,Review & Approve conductor spec	9*		01FEB08A	13FEB08	319	2,833.60						
1302-216		Prepare,Review & Approve coil spec	16*		31JAN08A	21FEB08	313	8,500.80						
1302-235		Detail Drawings PF4	36*		14DEC07A	12FEB08	320	460.48						
1302-245		Detail Drawings PF5	36*		14DEC07A	12FEB08	320	460.48						
1302-260		Detail Drawings PF6	30*		02JAN08A	12FEB08	320	460.48						
1302-250		Analysis Support	9*		31JAN08A	12FEB08	320	12,397.00						
1302-217		Drawing Support	9*		31JAN08A	12FEB08	320	10,626.00						
1302-218		PF Stress Analysis with leads	9*		31JAN08A	12FEB08	314	21,252.00						
1302-265		Prepare for FDR	6*		13FEB08	20FEB08	314	16,187.12						
1302-270	3	PF Coils - FDR	0	R		21FEB08	313	0.00						
1302-275		Resolve FDR Chits	51		22FEB08*	02MAY08	1,255	14,168.00						
Job: 1352 - PF Coil Procurement-CHRZANOWSKI														
PF Coil Fabrication														
141-038.1		PF Conductor Delivery	65		21FEB08A	30MAY08	389	200,210.40						
141-035D		PPPL Receive PF conductor	0			30MAY08	389	0.00						
141-039		Bid & Award Materials	21		03MAR08*	31MAR08	1,581	8,500.80						
141-040		PF Materials Awarded	0			31MAR08	1,581	0.00						
1352-100		Materials Delivery PF 4,5,6	68		01APR08	07JUL08	1,581	168,502.14						
141-035		Bid & Award PF Coil Fabrication	60*		07MAR08*	30MAY08	303	34,276.00						
141-035A		PF Coil Proposals Due	0			02APR08*	303	0.00						
141-035B		Proposal evaluation complete	0			16APR08*	303	0.00						
141-037		Bid & Award Conductor	15*		31JAN08A	20FEB08	389	8,500.80						
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Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY					
									FY08	FY09	FY10	FY11	FY12	FY13
141-035C		SPEB Evaluation complete	0			18APR08*	303	0.00						
141-035E		DOE Approval	0			16MAY08*	303	0.00						
141-036	2	PF Coils Awarded	0			30MAY08	303	0.00						
1352-121		Design/Fab Tooling for PF 5	85		02JUN08	30SEP08	304	273,900.00			48=273.9\$K ;			
1352-122		Design/Fab Tooling for PF 6	85		02JUN08	30SEP08	303	320,100.00			48=320.1\$K ;			
1352-145		Fabricate/Divr PF 5 & 6 Lower	95		01OCT08	23FEB09	304	156,519.00			48=153			
1352-145M	2	PF 5&6 Lower Delivered	0			23FEB09	304	0.00						
1352-146		Fabricate/Divr PF 5 & 6 Upper	154		24FEB09	30SEP09	456	156,519.00			48=153			
1352-120		Tooling for PF 4	55		01OCT08	18DEC08	303	73,656.00			48=72\$K ;			
1352-151		Fabricate/Divr PF 4 lower & upper	194		19DEC08	30SEP09	303	41,124.60			48=40.2			
141-031		Title III engr WBS 132	370		05MAY08	23OCT09	1,255	144,865.76			CHRZANOWSKI =784hr ;			
141-901		PF5 Lower Inspection & Test	5		24FEB09	02MAR09	304	3,545.70			CHRZANOWSKI=10hr ; EM/TB =20hr ;			
141-902		PF6 Lower Inspection & Test	5		24FEB09	02MAR09	304	3,545.70			CHRZANOWSKI=10hr ; EM/TB =20hr ;			
141-905		PF5 Upper Inspection & Test	5		01OCT09	07OCT09	456	3,649.20			CHRZANOWSKI =10hr ; EM/ TB =20hr ;			
141-906		PF6 Upper Inspection & Test	5		01OCT09	07OCT09	457	3,649.20			CHRZANOWSKI =10hr ; EM/ TB =20hr ;			
141-900		PF4 Lower Inspection & Test	5		01OCT09	07OCT09	303	3,649.20			CHRZANOWSKI =10hr ; EM/ TB =20hr ;			
141-900A		PF4 Upper Inspection & Test	5		01OCT09	07OCT09	461	3,649.20			CHRZANOWSKI=10hr ; EM/ TB =20hr ;			
141-903		Refurbish PF 1a	20		08OCT10*	04NOV10	154	7,229.60			EM/TB =80hr ;			
141-904		Assemble PF1a and CS structure	30		05NOV10	20DEC10	154	22,566.40			EM/TB =160hr ; CHRZANOWSKI =40hr ;			
Job: 1353 - CS Structure Procurement-PERRY														
CS Support Structure														
1353-001		Design PF1a upper to lower interconnect bus	12		15APR08*	30APR08	664	16,116.80			ea/sb=140			
1353-002		Engr & analysis of bus	14		01MAY08	20MAY08	664	17,710.00			dahlgren=100			
1353-002A		FDR	0			20MAY08	664	0.00						
1353-003		Bid & Award PF1a bus	39		10JUN10	04AUG10	154	0.00						
1353-004		Award PF1a bus	0			04AUG10	154	0.00						
1353-005		Fab & Deliver PF1a bus	65		05AUG10	04NOV10	154	45,565.61			41=33.76			
163-035		Bid & Award CS Support Struct	40		09MAR10	03MAY10	154	0.00						
163-036.9		Award CS Support Structure	0			03MAY10*	154	0.00						
163-037		CS Support Structure Procurement/Fab	130		04MAY10	04NOV10	154	258,801.16			41=191\$K ; 35=02\$K ;			
163-015		Title III design CS sprt struc	170*		09MAR10	04NOV10	154	19,433.82			EA/EM =100hr ;			
Job: 1354 - Trim Coil Design & Procurement-KALISH														
Trim Coil **Updated estimate**														
TRIM-020		Trim Coil System Requirements Document	12		07FEB08A	15FEB08	251	2,762.76			kalish =24hr ;			
TRIM-030		Review and Approve SRD	5		18FEB08*	22FEB08	251	0.00						
TRIM-070		Prelim trim coil concept & reqmnts	50*		02JAN08A	11MAR08	259	12,397.00			kalish =100hr ; RUSHINSKI=160hr ; CRUIKSHANK=160			
TRIM-071		Layout/Design coils & supports	29*		31JAN08*	11MAR08	259	30,051.26			kalish =80hr ; RUSHINSKI=156hr ; CRUIKSHANK=156			

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									FY08	FY09	FY10	FY11	FY12	FY13
TRIM-080		Analysis	50*		02JAN08A	11MAR08	259	21,252.00	DAHLGREN=160					
TRIM-090		Prepare for PDR	20*		25FEB08	21MAR08	251	9,846.88	kalish =40hr; RUSHINSKI =12hr; CRUIKSHANK=12					
TRIM-100		Trim Coil PDR	1		24MAR08	24MAR08	251	1,877.28	kalish =08hr; RUSHINSKI =04hr;					
TRIM-101	2	** Trim Coil PDR **	0			24MAR08	251	0.00	▼					
TRIM-110		Procure Trim Coil Insulation	50		25MAR08	03JUN08	382	70,396.56	41=56.677\$K;					
TRIM-130		Prepare Conductor Procurement Spec	3		25MAR08	27MAR08	324	3,294.08	kalish =16hr; RUSHINSKI =04hr;					
TRIM-140		Review and Approve Conductor Spec.	5		28MAR08	03APR08	324	0.00						
TRIM-120		Procure Trim Coil Conductor	100		04APR08	25AUG08	324	6,210.00	41=26.445\$K;					
TRIM-170		Complete Trim Coil Detailed Drawings	10		25MAR08	07APR08	251	38,290.16	kalish =68hr; RUSHINSKI =114hr; CRUIKSHANK=114					
TRIM-200		Assy drawings & parts list	10		08APR08	21APR08	251	20,190.00	kalish =36hr; RUSHINSKI =60hr; CRUIKSHANK=60					
TRIM-210		Prepare for FDR	5		22APR08	28APR08	251	9,846.88	kalish =40hr; RUSHINSKI =12hr; CRUIKSHANK=12					
TRIM-220		Trim Coil + Structure FDR	1		29APR08	29APR08	251	1,877.28	kalish =08hr; RUSHINSKI =04hr;					
TRIM-221	2	** Trim Coil + Structure FDR **	0			29APR08	251	0.00	▼					
TRIM-230		Resolve Chits	5		30APR08	06MAY08	251	4,250.40	kalish =24hr;					
TRIM-150		Prepare Trim Coil Procurement Spec.	10		25MAR08	07APR08	256	8,004.96	kalish =40hr; RUSHINSKI =08hr;					
TRIM-160		Approve Procurement Spec	5		08APR08	14APR08	256	0.00						
TRIM-240		Trim Coil Procurement	25		07MAY08	11JUN08	251	16,009.92	kalish =80hr; RUSHINSKI =16hr;					
TRIM-250	2	AWARD TRIM COIL PROCUREMENT	0			11JUN08	251	0.00	▼					
TRIM-260		Vendor Design and Fixture Fabrication	80		12JUN08	03OCT08	251	242,658.00	41=195\$K;					
TRIM-270M		Trim Coils for FPA #1 Delivered	45		06OCT08	09DEC08	251	186,815.20	41=55\$K; 48=112.4\$K;					
TRIM-270	2	Fabricate Trim Coils for FPA #1	0			09DEC08	251	0.00	▼					
TRIM-275		Fabricate Trim Coils for FPA #2	45		10DEC08	19FEB09	271	171,250.20	48=167.4\$K;					
TRIM-280		Fabricate Trim Coils for FPA #3	45		20FEB09	23APR09	271	171,250.20	48=167.4\$K;					
TRIM-300		Fabricate Brackets for 1st FPA	30		01JUL08*	12AUG08	333	150,729.12	41=121.36\$K;					
TRIM-303		Fabricate Brackets for 2nd FPA	30		13AUG08	24SEP08	383	150,729.12	41=121.36\$K;					
TRIM-306		Fabricate Brackets for 3rd FPA	30		25SEP08	05NOV08	383	157,460.55	41=121.36\$K;					
TRIM-399		Title Ill support & oversight	231		12JUN08	15MAY09	1,367	135,001.39	chrzanowski =552hr; RUSHINSKI =80hr; EM/TB =144hr; 35=10\$K;					
Job: 1355 - WBS 13 I&C Proc and Coil Assy-COLE														
TF/PF Local I&C														
1355-101		Design, and Review	60		01MAY08*	25JUL08	217	42,280.00	ornlem =280hr;					
1355-103		Prepare Installation Procedures	20		28JUL08	22AUG08	217	6,040.00	ORNLEM =40hr;					
1355-105		TF/PF Local I&C - FDR	5	R	25AUG08	29AUG08	217	6,040.00	ORNLEM =40hr;					
1355-107		Prep req,bid,award T/C and wire	20		02SEP08	29SEP08	217	1,812.00	ORNLEM=12					
1355-109		Deliver of T/C and wire	40		30SEP08	24NOV08	217	13,044.00	41=10\$K;					
1355-111		Installation on PF4,5,6 Coils upon delivery	159*		24FEB09	07OCT09	461	9,822.46	CHRZANOWSKI =10hr; EM/TB =95hr;					
1355-112		Installation on TF Coils upon delivery	45		25NOV08*	06FEB09	217	29,252.92	CHRZANOWSKI =29hr; EM/TB =285hr;					
1355-113		Installation on PF1a Coils upon delivery	3		02NOV10	04NOV10	154	1,648.60	CHRZANOWSKI =1hr; EM/TB =16hr;					
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									FY08	FY09	FY10	FY11	FY12	FY13		
14 - Modular Coils																
Job: 1416 - Mod Coil Type AB Fnl Dsn-WILLIAMSON																
Top level assy models/drawings																
1416-503		Complete models/drawings station 3 Assy	185*		01JUL07A	31MAR08	300	9,060.00	■ ORNLEM =120hr ;							
Analysis and closeout documentation																
1416-601	3	Prepare EM and structural analysis of leads	86*		02JAN08A	30APR08	1,627	95,474.88	■ EA/EM =192hr ; ORNL41=60k (myatt) ornlem=80							
1416-603		Update, review and approve FMECA	78*		01NOV07A	29FEB08	1,635	453.00	■ ORNLEM =60hr ;							
1416-604		Finalize draft documents - materials, eddy curre	5		03MAR08	07MAR08	1,635	6,038.49	■ ORNLEM =40hr ;							
1416-605	3	Prepare Type-ABC closeout documentation	15		09APR08*	29APR08	1,613	10,872.00	■ ORNLEM =72hr ;							
1416-606		Resolve documentation comments	15		30APR08	20MAY08	1,613	10,872.00	■ ORNLEM =72hr ;							
Type C Design Closeout																
1403-47C		Perform cool-down/warmup analysis	26		07JUL09*	11AUG09	1,307	7,497.20	■ EA/EM =40hr ;							
Job: 1408 - MC Winding Supplies-CHRZANOWSKI																
Station 1-Ordering, Misc Supplies, Tech Support																
1408-2		Epoxy (existing order)	256*		23MAY07A	02JUN08	1,605	19,002.60	■ 41=45\$K ;							
1408-3		Misc and safety supplies (\$7k/mo.)	276*		23MAY07A	30JUN08	1,585	40,476.78	■ 41=84\$K ;							
1408-4.0		Order Strain Gages	1		14MAR08*	14MAR08	170	0.00								
1408-4.1		Procure Strain Gages	55		17MAR08*	02JUN08	170	37,260.00	■ 41=38\$K ;							
1408-5		Epoxy/glass for mold shell	255*		23MAY07A	30MAY08	1,606	5,439.96	■ 41=13\$K ;							
1408-6		VPI clean manifold contract	276*		23MAY07A	30JUN08	1,585	4,818.96	■ 41=10\$K ;							
1408-8		Cutting hardware for flange bolts	276*		23MAY07A	30JUN08	1,585	1,440.72	■ 41=3k							
1408-7		Misc tech shop support	276*		23MAY07A	30JUN08	1,585	19,609.83	■ EMT/TB =640 ;							
Job: 1451 - Mod Coil Winding-CHRZANOWSKI																
Station 2-Winding, Instl Chill Plates,Tubing,Bag																
P3-080		Instl Chill Plates,Tubing,Bag B5	38*	1	20DEC07A	20FEB08	216	8,048.62	■ EM/TB =728							
P3-161		Wind coil B6	78*	1	01NOV07A	29FEB08	149	12,169.27	■ EM/TB =1509 EMT/TB =32 ;							
Station 3-Casting Prep & Winding																
P1-151		Receive A6, Prep& Instl Cladding	97*	1.5	01NOV07A	27MAR08	93	30,206.03	■ EM/TB =244hr ; EMT/TB =124 ; EM2/TB =245 ;							
P1-161		Wind coil A6	75	1	28MAR08	27MAY08	93	121,692.77	■ EM/TB =1509 EMT/TB =32 ;							
P1-170		Instl Chill Plates,Tubing,Bag A6	44	1	28MAY08	29JUL08	93	57,490.16	■ EM/TB =728							
Station 4-Winding, Instl Chill Plates,Tubing,Bag																
P3-170		Instl Chill Plates,Tubing,Bag B6	42	1	31JAN08A	02JUN08	149	57,490.16	■ EM/TB =728							
Station 5-VPI																
P2-051V		VPI (Station 5) C6	12*	1	31JAN08A	15FEB08	193	34,225.58	■ EM/TB =281hr ; EM2/TB =277 ; EMT/TB =16 ;							
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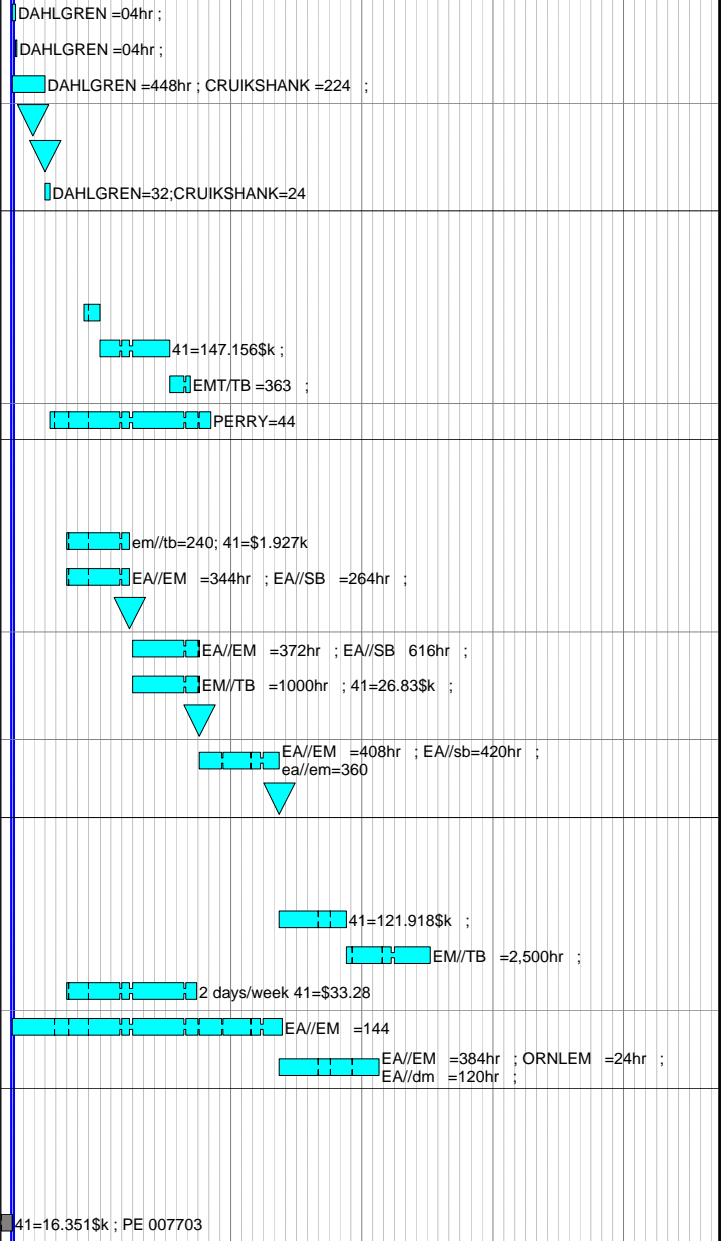
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P2-171V		VPI (Station 5) B5	19*	1	21FEB08	18MAR08	216	47,514.31	EM/TB =281hr ; EM2/TB =277 ; EMT/TB =16 ;					
P3-171V		VPI (Station 5) B6	19	1	03JUN08	27JUN08	149	47,514.31	EM/TB =281hr ; EM2/TB =277 ; EMT/TB =16 ;					
P1-171V		VPI (Station 5) A6	19	1	30JUL08	25AUG08	93	47,514.31	EM/TB =281hr ; EM2/TB =277 ; EMT/TB =16 ;					
P3-171VM	2	COMPLETE VPI OF 18th MOD COIL	0	1		25AUG08	93	0.00	▼					
Station 1 Post VPI														
P2-051C		Final Clamps & Warm Test (Station1) C6	43	1	18FEB08	16APR08	193	24,006.88	EM/TB =272 ; EMT/TB =32 ;					
P3-171C		Final Clamps & Warm Test (Station1) B5	16	1	17APR08	08MAY08	195	24,006.88	EM/TB =272 ; EMT/TB =32 ;					
P2-171C		Final Clamps & Warm Test (Station1) B6	16	1	30JUN08	22JUL08	149	24,006.88	EM/TB =272 ; EMT/TB =32 ;					
P1-171C		Final Clamps & Warm Test (Station1) A6	16	1	26AUG08	17SEP08	93	24,006.88	EM/TB =272 ; EMT/TB =32 ;					
LOE Oversight & Supervision														
145XSPRV-2		Winding Engineering oversight and supervision	314*		01MAY07A	31JUL08	1,563	74,971.74	Raftopolous=70hrs/mo.					
145XSPRV-3		Winding Engineering oversight and supervision	356*		01MAY07A	30SEP08	1,521	84,886.56	Languish=70 hrs/mo.					
145XSPRV-A		Winding Engineering oversight and supervision	185*		01NOV07A	31JUL08	1,563	189,776.65	Chrzanowski=120hrs/mo.;Meighan=120 hrs/mo.					
Job: 1459 - Mod Coil Fabr.Punch List-CHRZANOWSKI														
Punchlist Tech shop/RESA														
PLTS-C3		Grinding & Drill Holes -C3	102*	1	01OCT07A	03MAR08	187	8,339.23	EM/TB =240hr ;					
PLTS-C4		Grinding & Drill Holes -C4	5	1	01OCT07A	10MAR08	214	17,815.63	EM/TB =240hr ;					
PLTS-C5		Grinding & Drill Holes -C5	5	1	01OCT07A	17MAR08	1,659	18,763.27	EM/TB =240hr ;					
PLTS-B5		Grinding -B5	5	1	09MAY08	15MAY08	195	3,869.53	EM/TB =49hr ;					
PLTS-A6		Grinding -A6	5	1	01OCT07A	19SEP08	93	270.87	EM/TB =49hr ;					
PLTS-B6		Grinding -B6	5	1	23JUL08	29JUL08	149	3,869.53	EM/TB =49hr ;					
PLTS-C6		Grinding & Drill Holes -C6	20	1	17APR08	14MAY08	193	18,952.80	EM/TB =240hr ;					
PLTS-GRIND		Coil to coil fitup modifications (grinding/cp)	165*	1	01DEC07A	31JUL08	1,563	69,177.72	EM/TB =876hr ;					
Punchlist- Coil Technicians														
PLCT-A3		Insul,measure,TC, other punch list-A3	17	1	05JUL07A	14FEB08	174	2,854.77	EM/TB =241hr ;					
PLCT-A4		Insul,measure,TC, other punch list-A4	17	1	06JUL07A	05MAR08	174	11,990.02	EM/TB =241hr ;					
PLCT-B3		Insul,measure,TC, other punch list-B3	14	1	01OCT07A	20MAR08	174	2,114.82	EM/TB =206hr ;					
PLCT-C3		Insul,measure,TC, other punch list-C3	18	1	01OCT07A	07APR08	174	10,431.15	EM/TB =259hr ;					
PLCT-B4		Insul,measure,TC, other punch list-B4	14	1	01OCT07A	21APR08	174	1,464.10	EM/TB =206hr ;					
PLCT-C4		Insul,measure,TC, other punch list-C4	14	1	25JUL07A	02MAY08	184	10,461.95	EM/TB =276hr ;					
PLCT-A5		Insul,measure,TC, other punch list-A5	14	1	30JUL07A	12MAY08	184	13,502.29	EM/TB =206hr ;					
PLCT-A6		Insul,measure,TC,SG other punch list-A6	14	1	01OCT07A	09OCT08	93	13,895.54	EM/TB =206hr ;					
PLCT-B5		Insul,measure,TC, other punch list-B5	14	1	01OCT07A	29OCT08	93	14,288.80	EM/TB =206hr ;					
PLCT-C5		Insul,measure,TC, other punch list-C5	18	1	01OCT07A	06NOV08	93	4,475.17	EM/TB =255hr ;					
PLCT-B6		Insul,measure,TC,SG other punch list-B6	14	1	01OCT07A	18AUG08	149	13,502.29	EM/TB =206hr ;					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
PLCT-C6		Insul,measure,TC,SG other punch list-C6	14	1	01OCT07A	04JUN08	193	13,436.75						
PLCT-C6M		COMPLETE MODULAR COIL FABRICATION	0	1		04JUN08	193	0.00						
PLCT-CRANE		Crane support	207*	1	01DEC07A	30SEP08	1,521	31,310.03						
Job: 1421 - Mod Coil Interface Design-WILLIAMSON														
Outboard Interface-Bolted Joint Tests-Shear														
1421-3119B		Document test results	42*		02JAN08A	28FEB08	1,670	0.00						
1421-3999		Peer Review of Test Result	0			29FEB08	1,670	0.00						
Inboard Interface-AB/BC/AA														
1421-3138		Resolve issues, release assembly spec&drawings	58*		03DEC07A	29FEB08	0	3,624.00						
INTRF-100		Misc travel, meetings,reporting,job 1416&1421	207*		01MAY07A	29FEB08	1,670	23,622.70						
Job: 1429 - MC Interface R&D-DUDEK														
Outboard Interface-Friction														
1429-3029		Bolt Tests 3&4 Write Report (see 1421-3067to3090)	143*		01AUG07A	29FEB08	1,670	4,684.27						
1429-3030		G-10 Test	30		03MAR08*	11APR08	1,640	0.00						
Job: 1431 - Mod. Coil Interface Hardware-DUDEK														
Bladders														
1421-3024		Prep Req, Bid,& Award Remaining Bladders	21*		03MAR08*	31MAR08	114	0.00						
1421-3025		Deliver remaining bladders	14*		01APR08	18APR08	114	5,427.54						
1421-3028		Bladders available	0			18APR08	114	0.00						
Bushings														
1421-3117		PPPL Machine bushings Bushings FPA 2	40*		31JAN08A	26MAR08	149	9,871.25						
1421-3115		PPPL Machine bushings Bushings FPA 3	20		01AUG08*	28AUG08	186	9,871.25						
1421-3109		All Bushings Fabricated	0			28AUG08	186	0.00						
Pucks														
1429-3105		Deliver bar stock	22*		31JAN08A	29FEB08	17	23,883.66						
1429-3110		PPPL cut and grind to thickness	268*		05MAR08	31MAR09	17	11,913.89						
Shims-Outboard														
1429-3066		Outboard Shims	130		03MAR08*	03SEP08	90	592,395.88						
1429-3066H		Deliver 1st HP shims to PPPL	1		31JAN08*	31JAN08	20	0.00						
1429-3069		Outboard Shims Available for 1st 3 pack MC assy	0			28FEB08	0	0.00						
S21-5.04X		Shims required for 1st 3 pack MC assy	0			29FEB08	0	0.00						
Shims-Inboard														
1429-3062X		Inboard Shims	208		03MAR08*	02JAN09	74	132,566.39						

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
1429-3060B		PPPL water jet cut inboard shims	3		03JAN08A	05FEB08	13	0.00						
1429-3060A		PPPL mill inboard shims to thickness (for A-B)	5		06FEB08	12FEB08	13	0.00						
1429-3060D		PPPL mill inboard shims to thickness (for B-C)	10		13FEB08	26FEB08	93	0.00						
1429-3060C		PPPL anneal inboard shims	3		13FEB08	15FEB08	13	0.00						
Shims- C-C Joint														
1429-3062C		PPPL Cut, Grind, debur Inboard & Outboard Shims	20		01OCT09*	28OCT09	212	22,592.45						emt/tb=48hrs;41=13.81k
1429-3066C		Apply Alumina to In/Outboard Shims	20		29OCT09	25NOV09	212	5,775.84						41=4.32\$K ;
Studs, Washers, Nuts														
1421-3062		balance of studs for a-b-b-c joint PE007717	21*		01FEB08A	29FEB08	134	81,400.68						41= 65.544
1421-3063		Stud kits available for balance of MC assy	0			29FEB08	134	0.00						
1421-3070		Order studs & washers for c-c joint	15		12MAY08*	02JUN08	534	0.00						
1421-3072		Deliver studs & washers for c-c joint	40		03JUN08	29JUL08	534	50,021.46						41=28.33 k ; em//tb=180
1421-3073		Deliver supernuts for c-c joint	40		03JUN08*	29JUL08	547	11,178.00						41=9
Misc Tech Shop Support														
1421-4000		Misc Tech Shop support through sta 2 (1/2 mm/mo.	499*		01OCT07A	30SEP09	1,272	118,729.64						em//tb=1/2 fte per month
15 - Coil Structures														
Job: 1501 - Coil Structures Design-DAHLGREN														
1501-533		Detail CAD Drawings, BOM	260*		01JUN07A	16JUN08	212	28,638.26						EA/EM =20hr ; EA/DM =680 ;
1501-533F		Integrated Stress Analysis	176*		01OCT07A	16JUN08	222	25,927.44						EA/EM =610hr ;
1501-536		Issue dwgs for review	0			01APR08*	245	0.00						
1501-535		Develop Interfaces with cryostat	0			01MAY08*	243	0.00						
1501-549		Update C.S.Support Attacment Design	6		19MAY08	27MAY08	212	8,146.80						EA/EM =20hr ; EA/DM =40 ;
1501-550		Peer review C.S.Design	5		28MAY08	03JUN08	212	1,168.88						EA/EM =04hr ; EA/DM =04 ;
1501-554		Resolve CS peer review Chits	5		04JUN08	10JUN08	212	8,146.80						EA/EM =20hr ; EA/DM =40 ;
1501-562		Prepare Specs for Coil Structure & CSS h/w	14		11JUN08	30JUN08	212	3,542.00						EA/EM =20hr ;
1501-537		FDR Prep	10		17JUN08	30JUN08	212	3,515.48						EA/EM =14hr ; EA/DM =9 ;
1501-541	3	Coil Support Structures - FDR	0			30JUN08	212	0.00						
1501-545		Resolve Chits	5		01JUL08	08JUL08	212	5,844.40						EA/EM =20hr ; EA/DM =20 ;
1501-558		Prepare requisition for Coil Structure & CSS h/w	10		09JUL08	22JUL08	212	3,542.00						EA/EM =20hr ;
Job: 1550 - Coil Struct. Procurement -PERRY														
1501-245		Solicit Bids, and Evaluate Bids	35		23JUL08	10SEP08	212	0.00						
162-036.9	2	Award Coil Support Structure	0			10SEP08*	212	0.00						
162-037		Fabricate structure components	100		11SEP08	10FEB09	212	1,145,403.05						41=883.09
162-037M	2	Deliver Coil Structure components	0			10FEB09	212	0.00						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY					
									FY08	FY09	FY10	FY11	FY12	FY13
162-050		Prep req, bid and award G11/Teflon parts	25		01OCT08*	04NOV08	183	0.00						
162-051		Deliver G11/Teflon parts	90		05NOV08	23MAR09	183	153,879.66						
162-052		Prep req, bid and award Inconel hardware	25		01OCT08*	04NOV08	213	0.00						
162-053		Deliver Inconel hardware	60		05NOV08	09FEB09	213	106,586.37						
162-055		Prep req, bid and award Belleville Washers	25		01OCT08*	04NOV08	183	0.00						
162-057		Deliver Belleville Washers	90		05NOV08	23MAR09	183	24,422.20						
162-031		Title III engr WBS 151	117		11SEP08*	05MAR09	1,418	12,125.75						
16 - Coil Services														
Job: 1601 - Coil Services Design-GORANSON														
161 - LN2 Distribution														
191-001		Title I design WBS 161 LN2 manifolds&pipng	166*		01OCT07A	02JUN08	231	48,937.50						
191-002	3	LN2 manifolds&pipng- PDR	1		03JUN08	03JUN08	231	1,208.00						
161-003	3	Resolve PDR comments	5		04JUN08	10JUN08	231	6,040.00						
161-011A		R&D build mounts & lead terminations	60		11JUN08	04SEP08	231	24,040.00						
191-011		Title II design WBS 161 LN2 manifolds&pipng	60		11JUN08	04SEP08	231	65,250.00						
191-012		LN2 manifolds&pipng - FDR	1		05SEP08	05SEP08	231	1,208.00						
191-037		Prep Req,Bid,Award-manifolds,hoses,valves etc	25		08SEP08*	10OCT08	231	0.00						
191-038		Fab and deliver-manifold assy,hoses,valves etc	90		13OCT08*	26FEB09	231	136,453.09						
191-031		Title III engr WBS 161	118		08SEP08	03MAR09	1,420	24,040.53						
162 - Electrical Leads														
132-001		Title I design WBS 162 Coil leads	180*		03DEC07A	21AUG08	199	91,800.00						
132-002		Electrical Coil leads - PDR	1		22AUG08	22AUG08	199	1,208.00						
162-003		Resolve PDR comments	5		25AUG08	29AUG08	337	6,040.00						
132-011		Title II design WBS 162 Coil leads	139		02SEP08	26MAR09	337	119,231.03						
162-011A		R&D pressure drop simulation	15		02SEP08	22SEP08	461	13,640.00						
162-013		Release final drawings for MC lead stubs	26		25AUG08	30SEP08	241	0.00						
162-013.1		Procure MC lead stubs	65		01OCT08	12JAN09	241	18,806.40						
132-012		Electrical Coil leads - FDR	1		27MAR09	27MAR09	337	1,263.60						
132-015		Title III design WBS 162 Coil leads	263		30MAR09	19APR10	337	17,778.35						
132-037		Prep Req,Bid,Award Lead hardware and cables	25		26AUG09	30SEP09	340	0.00						
132-038		Deliver Lead hardware and cables	130		01OCT09*	14APR10	340	475,798.19						
132-047		Prep Req,Bid,Award Material for transition box	25		26AUG09	30SEP09	427	0.00						
132-048		Deliver Material for Transition Boxes	40		01OCT09*	25NOV09	427	1,550.92						
163 - Coil Protection System														
163.001		Design Coil protection(input to WBS 4 & 5)	65		01OCT08*	12JAN09	435	31,576.20						

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
17 - Cryostat and Base Support Structure														
Job: 1702 - Base Support Struct Design-DAHLGREN														
172 - Base Support Structure														
1702-515	3	Base support - PDR	5	R	31JAN08	06FEB08	202	3,506.64						
1702-516	3	Disposition PDR chits	5	R	07FEB08	13FEB08	202	2,833.60						
1702-520		Final design. Assy dwgs, fab dwgs, BOMs,specs/SO	64*		01FEB08A	30APR08	147	127,230.72						
1702-521	2	Issue dwgs for comment	0			28MAR08*	170	0.00						
1702-525M	2	Base Support Structure FDR	0			30APR08	147	0.00						
1702-530		Resolve chits, issue dwgs for fab,Issue requisit	10		01MAY08	14MAY08	147	8,430.08						
Job: 1752 - Base Support Proc-PERRY														
172 - Base Support Structure														
161-036.8	3	Bid and award base support materials	30		19AUG08*	30SEP08	177	0.00						
161-036.9	3	Deliver base support materials	130		01OCT08	13APR09	177	192,190.96						
161-037		PPPL assemble structure	40		14APR09*	09JUN09	177	30,335.91						
161-038		Title III	306		15MAY08*	05AUG09	1,311	7,037.18						
Job: 1701 - Cryostat Design-RAFTOPOLOUS														
1701 - Cryostat Design-RAFTOPOLOUS														
1701-099		Cryostat- Tabletop Prototype	122		01JUL08*	23DEC08	115	21,933.43						
1701-100		Cryostat- Conceptual Design	122		01JUL08*	23DEC08	115	93,845.62						
1701-100M	2	Cryostat- CDR	0			23DEC08	115	0.00						
1701-101		Cryostat- Preliminary Design	130		02JAN09	06JUL09	115	144,771.24						
1701-103		Cryostat-R&D/prototype	130		02JAN09	06JUL09	115	118,609.98						
1701-121	3	Cryostat- PDR	0	R		06JUL09	115	0.00						
1701-131		Cryostat- Final Design	148		07JUL09	12FEB10	115	198,463.26						
1701-141	2	Cryostat- FDR	0	R		12FEB10	115	0.00						
Job: 1751 - Cryostat Procurement-RAFTOPOLOUS														
1751 - Cryostat Procurement-RAFTOPOLOUS														
1751-151		Cryostat- Procure Materials and Supplies	130		15FEB10	17AUG10	116	163,007.04						
1751-161		Cryostat- Fabricate Components	160		18AUG10	11APR11	116	223,813.13						
1751-169		Cryostat & Cryogenic systems cryo consultant	247		01JUL08*	26JUN09	1,338	42,911.80						
1751-170		Cryostat & Cryogenic systems oversight&reporting	512		31JAN08	19FEB10	1,180	26,634.65						
1751-171		Cryostat- Title III	195		15FEB10	17NOV10	990	93,905.12						
18 - Field Period Assembly														
Job: 1803/1805- FPA Tooling/Constr-BROWN/DUDEK														
Station 3-Modular Coil to VVSA Assembly														
1803-3.11		Deliver Support Cart (PE 007703)	69*		15OCT07A			0.00						



Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
1803S3-1		Flange bolt/VV support access platform	10*		03MAR08*	14MAR08	248	9,074.40						
1803S3-2		Updated Stations 3 and 5 sequence plan	43*		31JAN08*	31MAR08	208	5,667.20						
1803S3-3		Station 3 alignment FDR and clean-up activities	15		01APR08*	21APR08	208	17,772.40						
1803S3-3M		Station 3 alignment FDR	0			21APR08	208	0.00						
1803S3-4		Generate laser screen trace drawings (3 periods)	15		19JAN09	06FEB09	84	14,007.20						
1803S3-5		Analyze single point lift (proof test of support	10*		18FEB08*	29FEB08	258	20,319.20						
1803S3-6		Station 3 simulation detail model	15*		04FEB08*	22FEB08	263	22,704.00						
1803S3-7		VV/MC clearance study (for VVSA1, 2 and 3)	11*		01APR08*	15APR08	196	18,453.60						
1803S3-8		Station 3 deflection FEA study	30		16APR08	28MAY08	196	39,670.40						
1803S3-10		Complete station 3 design & analysis	0			30SEP08	109	0.00						
1803S3-9		Oversite, cost and schedules, reviews	171		31JAN08*	30SEP08	109	7,084.00						
1805S3-2		Left side base grout plates	85		31JAN08	29MAY08	181	2,620.62						
1805S3-3		MCHP lift fixture frame weldment	85		31JAN08	29MAY08	181	9,091.44						
1805S3-4		Lift fixture mounting bracket weldments	85		31JAN08	29MAY08	181	14,717.70						
1805S3-5		Reworked laser frame structure	85		31JAN08	29MAY08	181	1,117.80						
1805S3-6		Right inboard laser frame structure	85		31JAN08	29MAY08	181	1,055.70						
1805S3-7		Left inboard laser frame structure	85		31JAN08	29MAY08	181	844.56						
1805S3-8		Laser screen lexan sheet (1/8 x 48" x 96")	85		31JAN08	29MAY08	181	546.48						
1805S3-9		Estimate for Station 2 type alignment system	85		31JAN08	29MAY08	181	4,024.08						
1805S3-100		Hardware & Misc items	65		31JAN08	30APR08	201	1,242.00						
1805S3-110		Misc assembly Cost	65		31JAN08	30APR08	201	10,060.20						
1805S3-201		MC base support system (left / rt side)	65		31JAN08	30APR08	201	15,512.58						
1805S3-202		Hilman roller - 8-0T plus R & U guides	65		31JAN08	30APR08	201	5,899.50						
1805S3-203		AirLoc Wedgmount Precision Levelers	65		31JAN08	30APR08	201	2,347.38						
1805S3-204		Lift fixture mounting bracket weldments	65		31JAN08	30APR08	201	14,717.70						
1805S3-205		Estimate for Station 2 type alignment system	65		31JAN08	30APR08	201	4,024.08						
1805S3-206		Hardware & Misc items	65		31JAN08	30APR08	201	1,242.00						
1805S3-207		Misc assembly Cost	22*		31JAN08A	29FEB08	244	10,060.20						
Station 5-Final Field Period Assembly														
1803S5-2		Circular ports assembly tooling models and dwgs	12*		31JAN08A	15FEB08	392	11,343.00						
1803S5-3		VV port alignment tooling	10*		18FEB08A	29FEB08	392	23,242.40						
1803S5-4		Station 5 (and 3) lift fixture structures and li	10*		04FEB08*	15FEB08	371	22,444.80						
1803S5-5		Port 4 assembly tooling, models and dwgs	31		18FEB08	31MAR08	371	9,209.60						
1803S5-6		Complete external platform models	33*		17MAR08*	30APR08	332	9,074.40						
1803S5-7		VV work platforms	17		01MAY08	23MAY08	332	13,611.60						
1803S5-8		Station 5 support structural analysis	10*		03MAR08*	14MAR08	382	28,336.00						
1803S5-9		Station 5 PDR activities	14		21FEB08*	11MAR08	385	7,084.00						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
1803S5-10		Station 5 FDR - Base support	22*		05MAR08*	03APR08	240	7,084.00	EA/EM =40hr ;					
1803-5.6	3	Station 5 FDR	0			03APR08	240	0.00	▼					
1803S5-11		Base support release for fabrication	5		04APR08	10APR08	363	4,604.80	EA/DM =40hr ;					
1803S5-12		Station 5 FDR - Lift fixtures, port tooling and	10		08APR08*	21APR08	351	7,084.00	EA/EM =40hr ;					
1803S5-13		Complete dwgs package & release for fabrication	5		22APR08	28APR08	351	4,537.20	EA/SB =40hr ;					
1803S5-14		Oversite, cost and schedules, reviews	170		31JAN08*	29SEP08	244	14,168.00	EA/EM =80hr ;					
1803S5-15		Complete station 5 design	0			29SEP08	244	0.00	▼					
1805S5-1		FPA base support system	105		04APR08	02SEP08	240	6,359.04	41=05\$K ;					
1805S5-2		Type-C side support structure	105		04APR08	02SEP08	240	3,589.38	41=03\$K ;					
1805S5-3		NB side stabilizing support structure	105		04APR08	02SEP08	240	2,322.54	41=02\$K ;					
1805S5-4		TF local temporary supports	105		04APR08	02SEP08	240	683.10	41=01\$K ;					
1805S5-5		20 ton screw jacks	105		04APR08	02SEP08	240	819.72	41=01\$K ;					
1805S5-6		AirLoc Wedgmount Precision Levelers	105		04APR08	02SEP08	240	1,242.00	41=01\$K ;					
1805S5-7		Port 4 handling structure	105		04APR08	02SEP08	240	5,464.80	41=04\$K ;					
1805S5-8		Small port handling structure	105		04APR08	02SEP08	240	1,366.20	41=01\$K ;					
1805S5-9		Station 5 (and 3) lift fixture structures	105		04APR08	02SEP08	240	9,327.42	41=08\$K ;					
1805S5-102		Hardware & Misc. items	105		04APR08	02SEP08	240	1,242.00	41=01\$K ;					
1805S5-103		Misc. assembly Cost	105		04APR08	02SEP08	240	10,060.20	41=08\$K ;					
6.00-Final Machine Assembly														
1803S6-1		Stage 6 FP support and roller system	39*		05MAY08*	27JUN08	470	76,811.20	EA/EM =120hr ; EA/EM =160hr ; EA/SB =240hr ;					
1803S6-2		Spool piece support and roller system	53*		19MAY08*	01AUG08	446	76,811.20	EA/EM =120hr ; EA/EM =160hr ; EA/SB =240hr ;					
1803S6-3		Update Station 6 sequence plan	10*		21JUL08*	01AUG08	446	7,084.00	EA/EM =40hr ;					
1803S6-4		External tooling/man access platforms	14*		18AUG08*	05SEP08	417	13,611.60	EA/SB =120hr ;					
1803S6-5		Metrology support stands	5		08SEP08	12SEP08	417	4,537.20	EA/SB =40hr ;					
1803S6-6		Station 6 stress and deflection FEA study	24*		09JUN08*	11JUL08	461	56,672.00	EA/EM =160hr ; EA/EM =160hr ;					
1803S6-7		Station 6 simulation model and clearance study	24*		23JUN08*	25JUL08	451	26,470.40	EA/EM =80hr ; EM/EM =80hr ;					
1803S6-8		Station 6 PDR - all systems	5		04JUN08*	10JUN08	483	7,084.00	EA/EM =40hr ;					
1803S6-9		Station 6 FDR - FP support and roller system	10		24JUN08*	08JUL08	255	7,084.00	EA/EM =40hr ;					
1803-6.6	3	Station 6 FDR	0			08JUL08	255	0.00	▼					
1803S6-10		FP support system release for fabrication	5		09JUL08	15JUL08	459	4,604.80	EA/DM =40hr ;					
1803S6-11		Station 6 FDR - Spool piece support system	10		23JUL08*	05AUG08	439	7,084.00	EA/EM =40hr ;					
1803S6-12		Spool piece system release for fabrication	5		06AUG08	12AUG08	439	4,537.20	EA/SB =40hr ;					
1803S6-13		Models/dwgs for test cell metrology layout	15*		22SEP08*	10OCT08	397	18,712.85	EA/SB =160hr ;					
1803S6-14		Oversite, cost and schedules, reviews	65		11JUL08	10OCT08	397	14,269.71	EA/EM =80hr ;					
1803S6-16		Complete station 6 design	0			10OCT08	397	0.00	▼					
1805S6-0		Order all fixtures and hardware	20		03SEP08*	30SEP08	196	0.00	EA/EM =40hr ;					
1805S6-1		FPA base support system	150		01OCT08	11MAY09	221	86,196.00	41=66\$K ;					
1805S6-2		AirLoc Wedgmount Precision Levelers	150		01OCT08	11MAY09	221	7,836.00	41=06\$K ;					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
1805S6-3		Spool piece support system	150		01OCT08	11MAY09	334	43,098.00						
1805S6-4		Thomson linear motion components	150		01OCT08	11MAY09	229	15,672.00						
1805S6-6		Spool piece support linear screw system	150		01OCT08	11MAY09	324	5,877.00						
1805S6-7		Metrology support stands	150		01OCT08	11MAY09	196	31,344.00						
1805S6-8		Hardware & Misc. items	150		01OCT08	11MAY09	196	3,918.00						
1805S6-9		Misc. assembly Cost	150		01OCT08	11MAY09	196	21,157.20						
Job: 1806 - FP Assembly specs and drawings-COLE														
1.00-VV Prep Station														
1803-609	3	Detail dwgs-spool piece	50		22AUG08	31OCT08	426	20,218.60						
Station 2-Modular Coil Sub- Assembly														
1803-201	3	Station 2 Assembly Specification	164*		01JUL07A	29FEB08	0	2,416.00						
Station 3-Modular Coil to VVSA Assembly														
1803-301		Station 3 Assembly Specification	185*		02JUL07A	31MAR08	163	25,368.00						
1803-305		Station 3 Assembly Drawings	185*		02JUL07A	31MAR08	163	6,336.00						
Station 5-Final Field Period Assembly														
1803-501		Station 5 Assembly Specification	48*		01APR08*	06JUN08	237	30,200.00						
1803-505		Station 5 Assembly Drawings	152*		03SEP07A	15APR08	274	14,256.00						
1803-509		Field period Assy Dwgs	132*		01FEB08*	06AUG08	195	47,520.00						
1803-611		Detail dwgs ports	90		01APR08*	06AUG08	195	23,760.00						
6.00-Final Machine Assembly														
1803-601		Station 6 Assembly Specification	120		15APR08*	02OCT08	377	66,490.97						
1803-605		Station 6 Assembly Drawings	120		15APR08*	02OCT08	377	63,408.53						
1803-613		Detail dwgs-man access port	120		15APR08*	02OCT08	377	7,926.07						
1803-605M	2	Station 6 Specification & Assy Drawings Complete	0			02OCT08	377	0.00						
1803-010		meetings,reporting,/presentations assy models	379*		01MAY07A	31OCT08	1,498	103,025.87						
Job: 1802 - FP Assy Oversight&Support-VIOLA														
Oversight and Supervision														
1802ORNL02		ORNL Title III field period assy station 2	425*		27FEB08	03NOV09	0	156,981.48						
1802ORNL03		ORNL Title III field period assy station 3	339*		05NOV08	24MAR10	0	122,745.91						
1802ORNL05		ORNL Title III field period assy station 5	363*		02MAR09	11AUG10	0	124,375.17						
R1802-003		Metrology Engr Super FY08	250*		01OCT07A	30SEP08	1,521	104,540.36						
R1802-004		Metrology Engr Super FY09 & FY10	445*		01OCT08*	19JUL10	1,076	280,468.52						
R1802-004S		Metrology Engr Super FY09 (2n shft supr .5 fte	227*	2	01OCT09*	31AUG10	1,045	145,377.16						
R1802-007		FPA Management FY08	250*		01OCT07A	30SEP08	1,521	172,504.25						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08 FY09 FY10 FY11 FY12 FY13						
									Gantt Chart						
R1802-008		FPA Management FY09 & FY10	445*		01OCT08*	19JUL10	1,076	484,154.29	EM//EM =1.0 fte						
R1802-009		PU Title III support	614*		27FEB08	11AUG10	0	488,098.99	EM//EM (PU sands)=6						
R1802-010		Drexel co-op student support	614*		27FEB08	11AUG10	0	66,596.14	Drexel co-op student =1.0fte						
R1802-015		HP Coverage in the TFTR TC LOE FY08	250*		01OCT07A	30SEP08	1,521	106,940.22	SH//TB =.75 fte						
R1802-016		HP Coverage in the TFTR TC LOE FY09 & FY10	445*		01OCT08*	19JUL10	1,076	359,984.41	SH//TB =(,75 fte) ;						
R1802-017		HP coverage (2nd shift)	227*	2	01OCT09*	31AUG10	1,045	146,950.60	EA//EM =.5 fte						
1802MISC		Misc materials,tools, GSA vehicle,rigging	616*	1	31JAN08	19JUL10	1,076	388,637.38	41=\$139.61 per day						
8203FY08.2		Title III Design support FY08 PPPL	106*		01MAY08*	30SEP08	1,521	100,040.60	EM//EM =492hr ; EA//DM =212hr ;						
8203FY09.1		Title III Design support FY09 PPPL	249*		01OCT08*	30SEP09	1,272	286,633.40	EA//EM =340hr ; EA//EM =520hr ; EA//SB =340hr ; EM//EM =520hr ;						
8203FY10.1		Title III Design support FY10 PPPL	248*		01OCT09*	30SEP10	1,024	293,684.09	EA//EM =173hr ; EA//EM =604hr ; EA//SB =345hr ; EM//EM =604hr ;						
Station 3 procedures,JHA,ACC,Training,Prep															
R1802-307		Procedures written & approved	10		01APR08	14APR08	163	0.00	Viola						
R1802-309		JHA completed	6		15APR08	22APR08	163	0.00	Viola						
R1802-311		Training needs identified & released	6		23APR08	30APR08	163	0.00	Viola						
R1802-313		ACC review completed	6		01MAY08	08MAY08	163	0.00	Viola						
R1802-315		Pre-job brief completed	6		09MAY08	16MAY08	163	0.00	Viola						
Station 5 procedures,JHA,ACC,Training,Prep															
R1802-507		Procedures written & approved	14		07AUG08	26AUG08	195	0.00	Viola						
R1802-509		JHA completed	6		27AUG08	04SEP08	195	0.00	Viola						
R1802-519		Fixtures installed	6		05SEP08	12SEP08	195	0.00	Viola						
R1802-511		Training needs identified & released	6		15SEP08	22SEP08	195	0.00	Viola						
R1802-513		ACC review completed	7		23SEP08	01OCT08	195	0.00	Viola						
R1802-515		Pre-job brief completed	7		02OCT08	10OCT08	195	0.00	Viola						
Job: 1810 - Field Period AssyStation 1,2,3 VIOLA															
General Assy Support															
R1810-003		LOE Crane support, fixture setupfor FY08	250*		01OCT07A	30SEP08	1,521	111,876.80	1.2 fte						
R1810-004		LOE Crane support, fixture setupfor FY09/10	445*		01OCT08*	19JUL10	1,076	300,205.11	1.2 fte						
R1801-004S		LOE Crane support, fixt setup (2nd shft 1.2 fte	227*	2	01OCT09*	31AUG10	1,045	155,608.43	EM//TB =1.2 fte						
R1810-007		LOE Field Supervision for FY08	250*		01OCT07A	30SEP08	1,521	159,000.51	1.0 fte						
R1810-008		LOE Field Supervision for FY09/10	445*		01OCT08*	19JUL10	1,076	426,574.65	1.0 fte						
R1810-008S		LOE Field Supervision for 2nd shft 1.0 fte	227*	2	01OCT09*	31AUG10	1,045	221,117.98	EE//SM =1.0 fte						
R1810-2001		Misc Hardware and hardware rework (1/2 fte loe)	615*	1	01FEB08*	19JUL10	1,076	182,042.96	41=10Sk ; EM//TB =960hr ;						
S21-4.02		Perform routine metrology set-up and checks (loe)	526*	1	01FEB08*	12MAR10	1,165	391,710.74	ZMET =3477						
R1810-099		Station 5 complete	0			11AUG10	1,059	0.00	▼						
Station 1-VV Prep (hard surface components) FP#1															
R1810-1188		Design and build flow test	37*	1	01JAN08A	21FEB08	307	13,425.89	EM//TB =300hr;em/em=40;41=9						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
R1810-1108		Perform final acceptance testing (H/C flow test)	15	1	26MAR08*	15APR08	284	23,691.00	EM//TB =300hr					
R1810-1110		Install Final Internal&Ext monuments & meas	4	1	01MAY08	06MAY08	244	6,317.60	EM//TB =80hr ;					
R1810-1114		Install heater tape on all removable ports	25	1	04AUG08	08SEP08	183	41,969.00	EM//TB =500hr ;					
R1810-1100		Design & Build heater& thermo termination box	41	1	06MAR08*	01MAY08	254	35,993.40	EM//TB =300hr ;em//em=80;41=2					
R1810-1101		heater& thermo termination & verification	18	1	02MAY08	28MAY08	254	28,429.20	EM//TB =360hr ;					
R1810-1111		Final Scan	4	1	09SEP08	12SEP08	183	6,317.60	EM//TB =80hr ;					
R1810-1113		Prepare & transfer completed VV to holding area	5	1	15SEP08	19SEP08	183	15,794.00	EM//TB =200hr ;					
Station 1- VV Prep (hrd surf cmpntsFP#2)														
R1810-1208		Perform final acceptance testing (H/C flow test)	32	1	16APR08	30MAY08	341	23,691.00	EM//TB =300hr ; 41=02\$K ;					
R1810-1216		Install Final Internal&Ext monuments & meas	20	1	02JUN08	27JUN08	341	6,317.60	EM//TB =80hr ;					
R1810-1214		Install heater tape on all removable ports	25	1	09SEP08	13OCT08	249	42,843.08	EM//TB =500hr ;					
R1810-1389		Heater and thermo termination & verification	18	1	14OCT08*	06NOV08	249	30,085.20	EM//TB =360hr ;					
R1810-1217		Final Scan	4	1	07NOV08	12NOV08	249	6,685.60	EM//TB =80hr ;					
R1810-1219		Prepare& transfer completed VV to holding area	5	1	13NOV08	19NOV08	249	16,714.00	EM//TB =200hr ;					
Station 1- VV Prep (hrd surf cmpntsFP#3)														
R1810-1308		Perform final acceptance testing (H/C flow test)	22	1	02JUN08*	01JUL08	380	23,691.00	EM//TB =300hr ;					
R1810-1310		Heater and thermo termination & verification	18	1	07NOV08*	04DEC08	272	30,085.20	EM//TB =300hr ;					
R1810-1328		Install Final Internal&Ext monuments & meas	4	1	25SEP08*	30SEP08	317	6,317.60	EM//TB =80hr ;					
R1810-1329	3	Final Scan of VVSA #3 Station 1 complete	4	1	05DEC08	10DEC08	272	6,685.60	EM//TB =80hr ;					
R1810-1314		Install heater tape on all removable ports	25	1	14OCT08*	17NOV08	283	44,397.00	EM//TB =500hr ;					
R1810-1331		Prepare & transfer completed VV to holding area	5	1	11DEC08	17DEC08	272	16,714.00	EM//TB =200hr ;					
Station 1-Spool pieces (3) (spacers)														
R1810-1S03		Attachdiagnostics, studs and coolant lines	24	1	03NOV08*	08DEC08	426	87,422.40	EM//TB =480hr ;zmet=384					
R1810-1S04		Install Final Internal&Ext monuments & meas	6	1	21JAN09	28JAN09	426	23,161.60	EM//TB =120hr ;41=1;zmet=96					
Station 2 Trials & Development														
R1810-2005		Trial bushing and shim test on prototype	12*	1	31JAN08A	15FEB08	1,680	0.00	EM//TB =240hr ; 41=02\$K ;					
Setup														
R1810-2034		Misc Tool and Hardware	440	1	31JAN08	28OCT09	1,252	19,238.05	41=15					
R1810-2047		Calibrate stud tensioner	44	1	31JAN08	01APR08	1,648	9,936.00	41=8					
R1810-2036		Fuji Paper	20	1	31JAN08	27FEB08	1,672	12,420.00	41=10					
R1810-2038		Purchase 5 ton gantry	65	1	31JAN08	30APR08	1,627	12,420.00	41=10					
R1810-2045		2 Electric Torque wrench	56	1	31JAN08*	17APR08	1,636	37,260.00	41=30					
R1810-2080		3rd laser tracker	65	1	31JAN08*	30APR08	1,627	161,460.00	41=130					
R1810-2081		Removable photogrammetry targets	108*	1	31JAN08*	01JUL08	1,584	14,293.76	41=11; em//tb=8					
R1810-2082		Fixed photogrammetry targets	108*	1	31JAN08*	01JUL08	1,584	59,709.00	41=29;em//tb=300					
R1810-2083		Replacement photogrammetry targets	65	1	31JAN08*	30APR08	1,627	15,535.76	41=12;em//tb=8					

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
R1810-2040		Test out equip & procedures	22*	1	31JAN08A	29FEB08	1,670	11,055.80	41=5;em//tb=140					
R1810-2004		Receive Drawings & Hardware (shims & Bolts)	7*	1	31JAN08A	08FEB08	273	0.00	EM//TB =140hr ;					
R1810-2027		Install THIRD Holding 20 deg fixture	10	1	01APR08*	14APR08	1,639	11,960.40	EM//TB =120hr ; 41=02\$K ;					
R1810-2021		Tools&tooling available for FPA operations	52*	1	01FEB08A			0.00	EM//TB =40hr ;41=10k					
R1810-2084		Design and purchase 3 additional wedge supports	87*	1	31JAN08	02JUN08	18	147,766.48	41=180;em//em=80;em//tb=64					
R1810-2024		Rework wedges f/combined assemblies& coil handli	10	1	31JAN08	13FEB08	1,682	15,794.00	em//tb=200					
R1810-2026		Setup up satellite shop in Mock-up area	15	1	31JAN08	20FEB08	1,677	51,738.60	em//tb=420;41=10;em//em=40					
R1810-2085		Trak 3 axis mill	65	1	31JAN08*	30APR08	1,627	40,986.00	41=33					
R1810-2086		Trak 3 axis mill collet set	65	1	31JAN08*	30APR08	1,627	1,242.00	41=1					
R1810-2087		Coordinate measuring machine	65	1	31JAN08*	30APR08	1,627	48,438.00	41=39					
R1810-2088		HEPA machine tool exhaust system	65	1	31JAN08*	30APR08	1,627	9,936.00	41=8					
R1810-2089		Tools, cabinets & storage shelving	65	1	31JAN08*	30APR08	1,627	9,936.00	41=8					
R1810-2002		Purchase grinding machine	45	1	31JAN08	02APR08	1,647	49,680.00	41=40					
R1810-2090		Consulting services nose welding (Parsells)	644	1	31JAN08*	26AUG10	1,048	207,966.21	41=80					
S20-3.03		Compress G10 shims & sort (initial 300 shims)	6	1	31JAN08*	07FEB08	16	9,476.40	41=5;em//tb=120					
S20-4.01		Install MCHP fixtures & metrology equip	67	1	01APR08*	03JUL08	1,582	17,158.20	41=10;em//tb=60					
S20-4.02		Perform metrology set-up;purchase 6 pillars	43	1	31JAN08*	31MAR08	1,649	9,936.00	41=8					
Pre-Measuring and fitup checks														
Pre measurement of MCHP A1,B1,C1 flanges														
2-1-2.99		Drill Stycast fill holes	10	1	14MAR08*	27MAR08	56	9,476.40	em//tb=120					
Pre measurement of MCHP A2,B2,C2 flanges														
S22-1.01		Verify mating MC's of MCHP will come together	38*	1	02JAN08A	22FEB08	124	10,108.16	EM//TB =160hr ;					
2-2-2.99		Drill Stycast fill holes	3	1	27MAR08*	31MAR08	152	9,476.40	em//tb=120					
S22-3.02		Compress shims sort by thickness	20	1	07MAR08*	03APR08	96	6,317.60	EM//TB =80hr ;					
S22-4.01		Install MCHP fixtures & metrology equip	21*	1	01FEB08A	29FEB08	119	9,476.40	em//tb=120 ;					
Pre measurement of MCHP A3,B3,C3 flanges														
S23-1.01		Verify mating MC's of MCHP will come together	4	1	03MAR08	06MAR08	122	12,635.20	EM//TB =160hr ;					
2-3-2.99		Drill Stycast fill holes	3	1	01APR08	03APR08	156	9,476.40	em//tb=120					
S23-3.02		Compress shims sort by thickness	6	1	14APR08	21APR08	90	6,317.60	EM//TB =80hr ;					
S23-4.01		Install MCHP fixtures & metrology equip	6	1	14APR08	21APR08	90	9,476.40	em//tb=120 ;					
S23-4.03		Ready For Preassembly A3B3C3	0	1	22APR08	21APR08	90	0.00						
Pre measurement of MCHP A4,B4,C4 flanges														
S24-1.01		Verify mating MC's of MCHP will come together	4	1	22APR08	25APR08	170	12,635.20	EM//TB =160hr ;					
S24-2.08		Measure C4 "A" flange	8	1	28APR08	07MAY08	170	23,806.72	EM//TB =400hr ; ZMET =96 ;					
2-4-2.99		Drill Stycast fill holes	3	1	04APR08	08APR08	191	9,476.40	em//tb=120					
S24-3.02		Compress shims sort by thickness	6	1	05MAY08	12MAY08	167	6,317.60	EM//TB =80hr ;					
S24-4.01		Install MCHP fixtures & metrology equip	6	1	14NOV08	21NOV08	31	10,028.40	em//tb=120 ;					
S24-4.03		Ready For Preassembly A4B4C4	0	1	24NOV08	21NOV08	31	0.00						
Pre measurement of MCHP A5,B5,C5 flanges														
S25-1.01		Verify mating MC's of MCHP will come together	4	1	07MAY08	12MAY08	205	12,635.20	EM//TB =160hr ;					
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Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08												FY09												FY10												FY11												FY12												FY13											
S25-2.01		Set the B5 coil on fixture, & measure	1	1	13MAY08	13MAY08	205	12,468.40													EM/TB =40hr ;zmet=80																																																											
S25-2.02		Align to the conical seats locking into min of 8	2	1	14MAY08	15MAY08	205	4,654.80													ZMET =40 ;																																																											
S25-2.03		Measure monuments on fixture and walls.	7	1	16MAY08	27MAY08	205	16,291.80													ZMET =140 ;																																																											
S25-2.04		Measure tooling ball monuments	1	1	28MAY08	28MAY08	205	2,327.40													ZMET =20 ;																																																											
S25-2.05		Scan the B flange of B5	1	1	29MAY08	29MAY08	205	1,861.92													ZMET =16 ;																																																											
S25-2.07		Remove B5 move to holding area.	1	1	30MAY08	30MAY08	205	1,579.40													EM/TB =20hr ;																																																											
2-5-2.99		Drill Stycast fill holes	3	1	07NOV08	11NOV08	93	10,028.40													em/tb=120																																																											
S25-3.02		Compress shims sort by thickness	6	1	27MAY08	03JUN08	206	6,317.60													EM/TB =80hr ;																																																											
S25-4.01		Install MCHP fixtures & metrology equipt	6	1	20NOV08	01DEC08	81	10,028.40													em/tb=120 ;																																																											
S25-4.03		Ready For Preassembly A5B5C5	0	1	02DEC08	01DEC08	81	0.00																																																																								
Pre measurement of MCHP A6,B6,C6 flanges																																																																																
S26-1.01		Verify mating MC's of MCHP will come together	8	1	05JUN08	16JUN08	193	12,635.20													EM/TB =160hr ;																																																											
S26-2.08		Measure B6 "A" flange	8	1	19AUG08	28AUG08	149	23,806.72													EM/TB =400hr ; ZMET =96 ;																																																											
S26-2.11		Measure C6 "A" flange	8	1	05JUN08	16JUN08	201	23,806.72													EM/TB =400hr ; ZMET =96 ;																																																											
S26-2.14		Measure Type A6"A" flange	8	1	10OCT08	21OCT08	112	13,198.80													EM/TB =40hr ; ZMET =80 ;																																																											
2-6-2.99		Drill Stycast fill holes	3	1	12NOV08	14NOV08	97	10,028.40													em/tb=120																																																											
S26-3.02		Compress shims sort by thickness	6	1	04SEP08	11SEP08	143	6,317.60													EM/TB =80hr ;																																																											
S26-4.01		Install MCHP fixtures & metrology equipt	6	1	06APR09	13APR09	0	10,028.40													em/tb=120 ;																																																											
S26-4.03		Ready For Preassembly A6B6C6	0	1	14APR09	13APR09	0	0.00																																																																								
Station 2 MC subassy A1B1C1																																																																																
A-B MC Assembly																																																																																
2-1-6.01		Lower Type-A modular coil onto jacks	3*	1	27FEB08*	29FEB08	0	18,121.14													ZMET =58 ; EM/TB =144hr ;																																																											
2-1-6.02		Mark nose shim locations & puck locations.	0*	1	03MAR08	29FEB08	0	0.00													EM/TB =00hr ;																																																											
2-1-6.03		Place initial set of alumina shims (4-8) on Type	1*	1	03MAR08	03MAR08	0	1,895.28													EM/TB =24hr ;																																																											
2-1-6.05		Lower mating "B" coil into position.	1*	1	04MAR08	04MAR08	0	3,790.56													EM/TB =48hr ;																																																											
2-1-6.051		Perform alignment "B" coil tooling balls	1*	1	05MAR08	05MAR08	0	2,234.30													EM/TB =00hr ; ZMET =19 ;																																																											
2-1-6.06		Install jack screws & dial indicators	1*	1	06MAR08	06MAR08	0	1,895.28													EM/TB =24hr ;																																																											
2-1-6.07		Position coil within ±.002" normal plane	1*	1	07MAR08	07MAR08	0	6,024.86													EM/TB =48hr ; ZMET =19 ;																																																											
2-1-6.08		Install remaining alumina coated shims; studs,s	1*	1	10MAR08	10MAR08	0	2,842.92													EM/TB =36hr ;																																																											
2-1-6.09		torque50% of final value & recheck.	1	1	11MAR08*	11MAR08	0	947.64													EM/TB =12hr ;																																																											
2-1-6.10		Measure position of all monuments	2	1	12MAR08	13MAR08	0	4,468.61													ZMET =38 ; EM/TB =00hr ;																																																											
2-1-6.11		Measure shim puck height	1	1	14MAR08	14MAR08	0	2,842.92													EM/TB =36hr ;																																																											
2-1-6.12		Remove puck locating rings & install all nose s	3	1	17MAR08	19MAR08	0	5,685.84													EM/TB =72hr ;																																																											
2-1-6.13		"Lightly" tack weld nose flex shims "A" & "B"	1	1	20MAR08	20MAR08	0	947.64													EM/TB =12hr ;																																																											
2-1-6.14		Unfasten bolts & remove "B" coil place it on sep	1	1	21MAR08	21MAR08	0	3,790.56													EM/TB =48hr ;																																																											
2-1-6.15		Recheck part alignment of "A" coil	2	1	24MAR08	25MAR08	0	8,259.17													EM/TB =48hr ; ZMET =38 ;																																																											
2-1-6.151		Weld all Type-A flex shims plasma side	2	1	26MAR08	27MAR08	0	8,212.62													EM/TB =48hr ; ZMET =38 ;																																																											
2-1-6.16		recheck alignment	1	1	28MAR08	28MAR08	0	2,234.30													EM/TB =00hr ; ZMET =19 ;																																																											
2-1-6.17		Time for a back office assessment (first wedl on	10	1	31MAR08	11APR08	0	4,422.06													EM/TB =00hr ; ZMET =38 ;																																																											

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08												FY09												FY10												FY11												FY12												FY13											
2-1-6.18		Measure "B" fiducials estab coord sys	1	1	31MAR08	31MAR08	9	2,234.30	EM//TB =00hr ; ZMET =19 ;																																																																							
2-1-6.19		Weld allType-B (A-flange) flex shims plasma side	2	1	14APR08	15APR08	0	6,583.44	EM//TB =48hr ; ZMET =24 ;																																																																							
2-1-6.20		Recheck part metrology acceptance criterion.	1	1	16APR08	16APR08	0	2,234.30	EM//TB =00hr ; ZMET =19 ;																																																																							
2-1-6.21		Back office assessment of part after weld	5	1	17APR08	23APR08	0	4,422.06	ZMET =38 ;																																																																							
2-1-6.22		Remove alumina shims as necessary	0	1	17APR08	16APR08	4	0.00	EM//TB =00hr ;																																																																							
2-1-6.04		Place unfilled shim bags in wing areas	1	1	17APR08	17APR08	4	1,895.28	EM//TB =24hr ;																																																																							
2-1-6.23		Lower mating "B" coil into position.	1	1	24APR08	24APR08	0	3,790.56	EM//TB =48hr ;																																																																							
2-1-6.231		Perform alignment "B" coil tooling balls	1	1	25APR08	25APR08	0	4,106.31	EM//TB =24hr ; ZMET =19 ;																																																																							
2-1-6.24		"B" coil, position coil accurately in x, y, &	1	1	28APR08	28APR08	0	4,106.31	EM//TB =24hr ; ZMET =19 ;																																																																							
2-1-6.25		Install alumina shims;studs, supernuts, wiggle t	1	1	29APR08	29APR08	0	6,217.65	EM//TB =36hr ; ZMET =29 ;																																																																							
2-1-6.26		Torque50% of final value.	1	1	30APR08	30APR08	0	947.64	EM//TB =12hr ;																																																																							
2-1-6.27		Measure position of all monuments	1	1	01MAY08	01MAY08	0	3,351.46	EM//TB =00hr ; ZMET =29 ;																																																																							
2-1-6.271		Fuji paper, & examine load sharing.	3	1	02MAY08	06MAY08	0	12,388.75	EM//TB =72hr ; ZMET =58 ;																																																																							
2-1-6.272		Install new shims & Fuji paper.	3	1	07MAY08	09MAY08	0	5,685.84	EM//TB =72hr ;																																																																							
2-1-6.273		Install shims without Fuji paper, studs, torque5	2	1	12MAY08	13MAY08	0	8,259.17	EM//TB =48hr ; ZMET =38 ;																																																																							
2-1-6.28		Adjust shims locally. Re-torque all studs50%.	2	1	14MAY08	15MAY08	0	8,259.17	EM//TB =48hr ; ZMET =38 ;																																																																							
2-1-6.29		Install bushing. Replace nut & tighten back 50%	3	1	16MAY08	20MAY08	0	5,685.84	EM//TB =72hr ;																																																																							
2-1-6.30		After super bolt tightening, measure position	1	1	21MAY08	21MAY08	0	3,351.46	ZMET =29 ;																																																																							
2-1-6.31		Tighten all bolts to final torque.	1	1	22MAY08	22MAY08	0	1,895.28	EM//TB =24hr ;																																																																							
2-1-6.32		After tightening hardware, measure position	2	1	23MAY08	27MAY08	0	3,351.46	EM//TB =00hr ; ZMET =29 ;																																																																							
2-1-6.33		Weld A / B nose region solenoid side	3	1	28MAY08	30MAY08	0	12,388.75	EM//TB =72hr ; ZMET =58 ;																																																																							
2-1-6.34		Measure positions of all monuments	1	1	02JUN08	02JUN08	0	2,234.30	EM//TB =00hr ; ZMET =19 ;																																																																							
2-1-6.35		Review with Back Office. INSTALL wing supports	10	1	03JUN08	16JUN08	0	8,259.17	EM//TB =48hr ; ZMET =38 ;																																																																							
2-1-6.36		Identify, a set of monuments moved less than .0	0	1	17JUN08	16JUN08	0	0.00	EM//TB =00hr ;																																																																							
2-1-6.37		Fill all loose bushings with Stycast 2850FT	6	1	17JUN08	24JUN08	0	3,790.56	EM//TB =48hr ;																																																																							
2-1-6.38		Scan "B" flange (datum "E") of "B" coil,	1	1	24JUN08	24JUN08	0	2,234.30	EM//TB =00hr ; ZMET =19 ;																																																																							
2-1-6.39		define all B/C flange shim thickness.	2	1	25JUN08	26JUN08	0	2,842.92	EM//TB =36hr ;																																																																							
AB-C MC Assembly																																																																																
2-1-7.01		lift (A-B) coil, along with fixture, onto anot	3	1	27JUN08	01JUL08	0	11,371.68	EM//TB =144hr ;																																																																							
2-1-7.02		Select a subset of monuments for initial alignm	1	1	02JUL08	02JUL08	0	2,234.30	EM//TB =00hr ; ZMET =19 ;																																																																							
2-1-7.03		Align set of monuments selected in 7.02.	1	1	03JUL08	03JUL08	0	2,234.30	EM//TB =00hr ; ZMET =19 ;																																																																							
2-1-7.04		Establish a set of global monuments	1	1	07JUL08	07JUL08	0	2,234.30	EM//TB =00hr ; ZMET =19 ;																																																																							
2-1-7.05		Mark nose shim locations & puck locations.	1	1	08JUL08	08JUL08	0	1,895.28	EM//TB =24hr ;																																																																							
2-1-7.06		Place initial set alumina shims (4-8) on Type-B	0	1	09JUL08	08JUL08	0	0.00	EM//TB =00hr ;																																																																							
2-1-7.08		Lower mating "C" coil into position.	1	1	09JUL08	09JUL08	0	3,790.56	EM//TB =48hr ;																																																																							
2-1-7.081		Perform alignment "C" coil tooling balls	1	1	10JUL08	10JUL08	0	2,234.30	EM//TB =00hr ; ZMET =19 ;																																																																							
2-1-7.09		Install jack screws & dial indicators	1	1	11JUL08	11JUL08	0	1,895.28	EM//TB =24hr ;																																																																							
2-1-7.10		Position coil within ±.002"	1	1	14JUL08	14JUL08	0	1,895.28	EM//TB =24hr ;																																																																							
2-1-7.11		Install alumina coated shims studs, & "wiggle"	1	1	15JUL08	15JUL08	0	2,842.92	EM//TB =36hr ;																																																																							

Activity ID	MILESTONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12	FY13	
2-1-11.03		Scan "B" flange Type-C coil & interfacing base	3	1	21OCT08	23OCT08	0	7,096.32		EM/TB =00hr ; ZMET =58 ;					
2-1-11.04		Measure bolt length on all tension fasteners	1	1	24OCT08	24OCT08	0	2,005.68		EM/TB =24hr ;					
2-1-11.05		Perform Electrical Megger test on each coil	2	1	27OCT08	28OCT08	0	4,011.36		EM/TB =48hr ;					
2-1-11.06		Mark part for identification	0	1	29OCT08	28OCT08	0	0.00		EM/TB =00hr ;					
2-1-11.07		Install lift support beams	2	1	29OCT08	30OCT08	0	8,022.72		EM/TB =96hr ;					
2-1-11.08		Remove from stand & measure weight of completed	1	1	31OCT08	31OCT08	0	4,011.36		EM/TB =48hr ;					
2-1-11.09		Move to holding area.	2	1	03NOV08	04NOV08	0	8,022.72		EM/TB =96hr ;					
S21-11.07M	2	Complete 1st MCHP Assy (Sta 2)	0	1		04NOV08	0	0.00		***** LEVEL II MILESTONE DATE SEPTEMBER 2008 *****					
2-1-11.10		Lift upper wedge & reinstall & grout at Assembly	10	1	05NOV08	18NOV08	0	20,056.80		EM/TB =240hr ;					
Station 2 MC subassy A2B2C2															
A-B MC Assembly															
2-2-6.01		Lower Type-A modular coil onto jacks	3	1	24APR08	28APR08	81	15,062.16		EM/TB =120hr ; ZMET =48 ;					
2-2-6.02		Mark nose shim locations & puck locations.	0	1	29APR08	28APR08	81	0.00		EM/TB =00hr ;					
2-2-6.03		Place initial set of alumina shims (4-8) on Type	1	1	29APR08	29APR08	81	1,579.40		EM/TB =20hr ;					
2-2-6.05		Lower mating "B" coil into position.	1	1	30APR08	30APR08	81	3,158.80		EM/TB =40hr ;					
2-2-6.051		Perform alignment "B" coil tooling balls	1	1	01MAY08	01MAY08	81	1,861.92		EM/TB =00hr ; ZMET =16 ;					
2-2-6.06		Install jack screws & dial indicators	1	1	02MAY08	02MAY08	81	1,579.40		EM/TB =20hr ;					
2-2-6.07		Position coil within ±.002" normal plane	1	1	05MAY08	05MAY08	81	5,020.72		EM/TB =40hr ; ZMET =16 ;					
2-2-6.08		Install remaining alumina coated shims; studs,s	1	1	06MAY08	06MAY08	81	2,369.10		EM/TB =30hr ;					
2-2-6.09		torque50% of final value & recheck.	1	1	07MAY08	07MAY08	81	789.70		EM/TB =10hr ;					
2-2-6.10		Measure position of all monuments	2	1	08MAY08	09MAY08	81	3,723.84		ZMET =32 ;					
2-2-6.11		Measure shim puck height	2	1	12MAY08	13MAY08	81	2,369.10		EM/TB =30hr ;					
2-2-6.12		Remove puck locating rings & install all nose s	3	1	14MAY08	16MAY08	81	4,738.20		EM/TB =60hr ;					
2-2-6.13		"Lightly" tack weld nose flex shims "A" & "B"	1	1	19MAY08	19MAY08	81	789.70		EM/TB =10hr ;					
2-2-6.14		Unfasten bolts & remove "B" coil place it on sep	1	1	20MAY08	20MAY08	81	3,158.80		EM/TB =40hr ;					
2-2-6.15		Recheck part alignment of "A" coil	2	1	21MAY08	22MAY08	81	6,882.64		EM/TB =40hr ; ZMET =32 ;					
2-2-6.151		Weld all Type-A flex shims plasma side	2	1	23MAY08	27MAY08	81	6,882.64		EM/TB =40hr ; ZMET =32 ;					
2-2-6.16		recheck alignment	1	1	28MAY08	28MAY08	81	1,861.92		EM/TB =00hr ; ZMET =16 ;					
2-2-6.17		Back office assessment of part after weld	2	1	29MAY08	30MAY08	81	3,723.84		ZMET =32 ;					
2-2-6.18		Measure "B" fiducials estab coord sys	1	1	29MAY08	29MAY08	82	1,861.92		EM/TB =00hr ; ZMET =16 ;					
2-2-6.19		Weld all Type-B (A-flange) flex shims plasma sid	2	1	02JUN08	03JUN08	81	6,882.64		EM/TB =40hr ; ZMET =32 ;					
2-2-6.20		Recheck part metrology acceptance criterion.	1	1	04JUN08	04JUN08	81	1,861.92		EM/TB =00hr ; ZMET =16 ;					
2-2-6.21		Back office assessment of part after weld	2	1	05JUN08	06JUN08	81	3,723.84		ZMET =32 ;					
2-2-6.22		Remove alumina shims as necessary	0	1	05JUN08	04JUN08	82	0.00		EM/TB =00hr ;					
2-2-6.04		Place unfilled shim bags in wing areas	1	1	05JUN08	05JUN08	82	1,579.40		EM/TB =20hr ;					
2-2-6.23		Lower mating "B" coil into position.	1	1	09JUN08	09JUN08	81	3,158.80		EM/TB =40hr ;					
2-2-6.231		Perform alignment "B" coil tooling balls	1	1	10JUN08	10JUN08	81	1,861.92		EM/TB =00hr ; ZMET =16 ;					
2-2-6.24		"B" coil, position coil accurately in x, y, &	1	1	11JUN08	11JUN08	81	3,441.32		EM/TB =20hr ; ZMET =16 ;					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
Station 2 MC subassy A5B5C5														
A-B MC Assembly														
2-5-6.01		Lower Type-A modular coil onto jacks	3	1	02DEC08	04DEC08	81	15,942.00			EM//TB =120hr ; ZMET =48 ;			
2-5-6.02		Mark nose shim locations & puck locations.	0	1	05DEC08	04DEC08	81	0.00			EM//TB =00hr ;			
2-5-6.03		Place initial set of alumina shims (4-8) on Type	1	1	05DEC08	05DEC08	81	1,671.40			EM//TB =20hr ;			
2-5-6.05		Lower mating "B" coil into position.	1	1	08DEC08	08DEC08	81	3,342.80			EM//TB =40hr ;			
2-5-6.051		Perform alignment "B" coil tooling balls	1	1	09DEC08	09DEC08	81	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-5-6.06		Install jack screws & dial indicators	1	1	10DEC08	10DEC08	81	1,671.40			EM//TB =20hr ;			
2-5-6.07		Position coil within ±.002" normal plane	1	1	11DEC08	11DEC08	81	5,314.00			EM//TB =40hr ; ZMET =16 ;			
2-5-6.08		Install remaining alumina coated shims; studs,s	1	1	12DEC08	12DEC08	81	2,507.10			EM//TB =30hr ;			
2-5-6.09		torque50% of final value & recheck.	1	1	15DEC08	15DEC08	81	835.70			EM//TB =10hr ;			
2-5-6.10		Measure position of all monuments	2	1	16DEC08	17DEC08	81	3,942.40			ZMET =32 ; EM//TB =00hr ;			
2-5-6.11		Measure shim puck height	2	1	18DEC08	19DEC08	81	2,507.10			EM//TB =30hr ;			
2-5-6.12		Remove puck locating rings & install all nose s	3	1	22DEC08	02JAN09	81	5,014.20			EM//TB =60hr ;			
2-5-6.13		"Lightly" tack weld nose flex shims "A" & "B"	1	1	05JAN09	05JAN09	81	835.70			EM//TB =10hr ;			
2-5-6.14		Unfasten bolts & remove "B" coil place it on sep	1	1	06JAN09	06JAN09	81	3,342.80			EM//TB =40hr ;			
2-5-6.15		Recheck part alignment of "A" coil	2	1	07JAN09	08JAN09	81	7,285.20			EM//TB =40hr ; ZMET =32 ;			
2-5-6.151		Weld all Type-A flex shims plasma side	2	1	09JAN09	12JAN09	81	7,285.20			EM//TB =40hr ; ZMET =32 ;			
2-5-6.16		recheck alignment	1	1	13JAN09	13JAN09	81	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-5-6.17		Back office assessment of part after weld	2	1	14JAN09	15JAN09	81	3,942.40			EM//TB =00hr ; ZMET =32 ;			
2-5-6.18		Measure "B" fiducials estab coord sys	1	1	14JAN09	14JAN09	82	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-5-6.19		Weld all Type-B (A-flange) flex shims plasma sid	2	1	16JAN09	19JAN09	81	7,285.20			EM//TB =40hr ; ZMET =32 ;			
2-5-6.20		Recheck part metrology acceptance criterion.	1	1	20JAN09	20JAN09	81	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-5-6.21		Back office assessment of part after weld	2	1	21JAN09	22JAN09	81	3,942.40			EM//TB =00hr ; ZMET =32 ;			
2-5-6.22		Remove alumina shims as necessary	0	1	21JAN09	20JAN09	82	0.00			EM//TB =00hr ;			
2-5-6.04		Place unfilled shim bags in wing areas	1	1	21JAN09	21JAN09	82	1,671.40			EM//TB =20hr ;			
2-5-6.23		Lower mating "B" coil into position.	1	1	23JAN09	23JAN09	81	3,342.80			EM//TB =40hr ;			
2-5-6.231		Perform alignment "B" coil tooling balls	1	1	26JAN09	26JAN09	81	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-5-6.24		"B" coil, position coil accurately in x, y, &	1	1	27JAN09	27JAN09	81	3,642.60			EM//TB =20hr ; ZMET =16 ;			
2-5-6.25		Install alumina shims;studs,supernuts, wiggle t	1	1	28JAN09	28JAN09	81	5,463.90			EM//TB =30hr ; ZMET =24 ;			
2-5-6.26		Torque50% of final value.	1	1	29JAN09	29JAN09	81	835.70			EM//TB =10hr ;			
2-5-6.27		Measure position of all monuments	2	1	30JAN09	02FEB09	81	2,956.80			ZMET =24 ; EM//TB =00hr ;			
2-5-6.28		Adjust shims locally. Re-torque all studs50%.	3	1	03FEB09	05FEB09	81	10,927.80			EM//TB =60hr ; ZMET =48 ;			
2-5-6.29		Install bushing. Replace nut & tighten back 50%	3	1	06FEB09	10FEB09	81	5,014.20			EM//TB =60hr ;			
2-5-6.30		After super bolt tightening, measure position	1	1	11FEB09	11FEB09	81	2,956.80			ZMET =24 ; EM//TB =00hr ;			
2-5-6.31		Tighten all boltsir final torque.	1	1	12FEB09	12FEB09	81	1,671.40			EM//TB =20hr ;			
2-5-6.32		After tightening hardware, measure position	2	1	13FEB09	16FEB09	81	2,956.80			ZMET =24 ; EM//TB =00hr ;			
2-5-6.33		Weld A / B nose region solenoid side	3	1	17FEB09	19FEB09	81	10,927.80			EM//TB =60hr ; ZMET =48 ;			
2-5-6.34		Measure positions of all monuments	1	1	20FEB09	20FEB09	81	1,971.20			EM//TB =00hr ; ZMET =16 ;			










Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12	FY13	
2-6-11.07		Install lift support beams	2	1	28OCT09	29OCT09	0	6,880.80			EM/TB =80hr ;				
2-6-11.08		Remove from stand & measure weight of completed	1	1	30OCT09	30OCT09	0	3,440.40			EM/TB =40hr ;				
2-6-11.09		Move to holding area.	2	1	02NOV09	03NOV09	0	6,880.80			EM/TB =80hr ;				
S26MILE		complete A6/B6/C6	0	1		03NOV09	0	0.00			▼				
Station 3 Setup/Preparations/General															
Misc Prep activities															
R1810-3112		Load Test 3 legged actuator lift fixtur	8	1	24OCT08	04NOV08	84	10,696.96			EM/TB =128hr ;				
R1810-3113		Procure wire rope slings & 6 17ton shackles	8	1	24OCT08	04NOV08	84	19,901.20			EM/TB =160hr ;41=5				
R1810-3151		Fab new platform legs	4	1	10OCT08*	15OCT08	84	22,575.44			EM/TB =192hr ;41=5				
R1810-3153		Fab new platform safety rails	4	1	16OCT08*	21OCT08	84	29,105.44			EM/TB =192hr ;41=10				
R1810-3109		Remove winding stations & enclosures	2	1	03NOV08	04NOV08	84	56,064.40			EM/TB =480;em/sm=40; 41=3				
R1810-3107		Test out station 3 equipment and procedures	30	1	24SEP08	04NOV08	84	49,682.00			EM/TB =200hr ; 41=10\$K ;				
Station 3-Assemble Mod Coils and VVSA-FP#1															
Set-up and Prep															
3-1-1.01		transfer CAD models	7	1	27OCT08	04NOV08	84	13,798.40			zmet=112				
3-1-1.02		Install Station 3 site monuments	3	1	31OCT08	04NOV08	84	13,539.80			41=2;em/tb=60;zmet=48				
3-1-1.021		Design, fabricate and calibrate photogrammetry	15	1	15OCT08	04NOV08	84	53,542.80			41=3;em/tb=240;zmet=240				
3-1-1.03		Install floor mounted tracks and the VV base sup	5	1	16OCT08	22OCT08	84	19,519.00			41=1;em/tb=100;zmet=80				
3-1-1.04		Install MCHP left support stand. Position to .0	3	1	23OCT08	27OCT08	84	10,927.80			zmet=48;em/tb=60				
3-1-1.05		Install the MCHP right support stand;	3	1	28OCT08	30OCT08	84	5,014.20			em/tb=60				
3-1-1.06		Install alignment brackets, jack screws dial ind	3	1	31OCT08	04NOV08	84	11,544.20			41=5;em/tb=60				
3-1-1.07		Reconfirm Leica position	3	1	31OCT08	04NOV08	84	5,913.60			zmet=48				
3-0-PLAT.1		Install station 3 platforms FP#1(8 required)	10	1	22OCT08	04NOV08	84	23,399.60			EM/TB =280hr ; 41=10\$K ;				
Pre-assemble LEFT MCHP															
3-1-2.01		Position left MCHP over left support	1	1	05NOV08	05NOV08	84	4,011.36			EM/TB =48hr ;				
3-1-2.02		Secure left MCHP to vertical support posts	1	1	06NOV08	06NOV08	84	2,005.68			EM/TB =24hr ;				
3-1-2.03		Measure all chosen monuments	2	1	07NOV08	10NOV08	84	3,942.40			EM/TB =00hr ; ZMET =32 ;				
3-1-2.04		Measure the Type-A and Type-C end flanges while	2	1	11NOV08	12NOV08	84	4,730.88			EM/TB =00hr ; ZMET =38 ;				
3-1-2.05		Allow time for the back office to review the me	2	1	13NOV08	14NOV08	84	4,730.88			EM/TB =00hr ; ZMET =38 ;				
3-1-2.06		Mark nose shim locations & pucks	1	1	13NOV08	13NOV08	84	2,005.68			EM/TB =24hr ;				
Pre-assemble RIGHT MCHP															
3-1-3.01		Move the right support cart in the far right lo	0	1	14NOV08	13NOV08	84	0.00			EM/TB =00hr ;				
3-1-3.02		Position right MCHP over right support	1	1	14NOV08	14NOV08	84	4,011.36			EM/TB =48hr ;				
3-1-3.03		Secure right MCHP to support base	1	1	17NOV08	17NOV08	84	2,005.68			EM/TB =24hr ;				
3-1-3.04		Measure the target monuments on right MCHP with	2	1	18NOV08	19NOV08	84	3,942.40			ZMET =32 ; EM/TB =00hr ;				
3-1-3.05		Measure the Type-A and Type-C end flanges while	2	1	20NOV08	21NOV08	84	4,730.88			ZMET =38 ; EM/TB =00hr ;				
3-1-3.06		Allow time for the back office to review the me	4	1	24NOV08	01DEC08	84	9,461.76			EM/TB =00hr ; ZMET =77 ;				
3-1-3.07		Mark nose shim locations	1	1	24NOV08	24NOV08	84	2,005.68			EM/TB =24hr ;				
3-1-3.08		Define all outboard shim thicknesses	0	1	25NOV08	24NOV08	84	0.00			EM/TB =00hr ;				

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12	FY13	
Pre-assemble LEFT and RIGHT MCHP															
3-1-4.01		Place alumina shims (4-8) on left side type A	1	1	25NOV08	25NOV08	84	1,671.40							
3-1-4.02		Temp lift right MCHP and move support cart	1	1	26NOV08	26NOV08	84	2,005.68							
3-1-4.03		Position right MCHP over right support	1	1	01DEC08	01DEC08	84	4,011.36							
3-1-4.04		Bring Air Loc wedgemeount leveler to take load	1	1	02DEC08	02DEC08	84	2,005.68							
3-1-4.05		Measure the target monuments on left MCHP with	2	1	03DEC08	04DEC08	84	4,730.88							
3-1-4.06		Install temporary scaffolding to install flange	1	1	03DEC08	03DEC08	85	4,011.36							
3-1-4.07		Instl remaining alumina shims; instl nuts/studs	2	1	05DEC08	08DEC08	84	4,011.36							
3-1-4.08		Make a hand "wigggle" test (rotate on bolt) on a	2	1	09DEC08	10DEC08	84	4,011.36							
3-1-4.09		Tighten flange fasteners to 50%	1	1	11DEC08	11DEC08	84	2,005.68							
3-1-4.10		measure the position of all monuments	1	1	12DEC08	12DEC08	84	2,365.44							
3-1-4.11		Measure the shim puck height (at a number of po	2	1	15DEC08	16DEC08	84	8,742.24							
3-1-4.111		Fit and tack weld flex shims in place	3	1	17DEC08	19DEC08	84	6,017.04							
3-1-4.12		Unfasten all bolts, & roll right MCHP to right	2	1	22DEC08	23DEC08	84	4,011.36							
3-1-4.121		lay left MCHP onto 60 degree wedge for welding	2	1	02JAN09	05JAN09	84	8,022.72							
3-1-4.122		Measure the left MCHP fiducials	1	1	06JAN09	06JAN09	84	4,371.12							
3-1-4.13		Recheck alignment & weld plasma side shims	2	1	07JAN09	08JAN09	84	7,285.20							
3-1-4.14		After welding the left MCHP nose shims recheck	2	1	09JAN09	12JAN09	84	4,730.88							
3-1-4.15		Time for back office assessment	2	1	13JAN09	14JAN09	84	4,730.88							
3-1-4.151		Lift left MCHP & install on support stand	1	1	15JAN09	15JAN09	84	3,342.80							
3-1-4.152		Lay right MCHP on 60 deg wedge for welding	1	1	16JAN09	16JAN09	84	3,342.80							
3-1-4.16		Measure right MCHP fiducials establish ref	1	1	19JAN09	19JAN09	84	2,365.44							
3-1-4.17		Weld right MCHP flex shims	2	1	20JAN09	21JAN09	84	7,285.20							
3-1-4.18		After welding the right MCHP nose shims recheck	1	1	22JAN09	22JAN09	84	2,365.44							
3-1-4.19		Time for back office assessment	2	1	23JAN09	26JAN09	84	4,730.88							
RE-assemble LEFT and RIGHT MCHP															
3-1-5.01		Lift right MCHP and move support cart	2	1	27JAN09	28JAN09	84	8,022.72							
3-1-5.02		Position right MCHP over right support	2	1	29JAN09	30JAN09	84	8,022.72							
3-1-5.03		Bring Air Loc wedgemeount leveler to take load	1	1	02FEB09	02FEB09	84	2,005.68							
3-1-5.04		Measure the target monuments on left MCHP with	2	1	03FEB09	04FEB09	84	4,730.88							
3-1-5.05		Bond all inboard shim pucks to the right MCHP T	2	1	05FEB09	06FEB09	84	4,011.36							
Install Laser Screen															
3-1-6.02		Place all laser screens	2	1	09FEB09	10FEB09	84	7,285.20							
3-1-6.03		Turn each lasers on & measure each laser source	1	1	11FEB09	11FEB09	84	4,371.12							
3-1-6.04		Print path on milar paper	0	1	12FEB09	11FEB09	84	0.00							
3-1-6.05		Disengage the right MCHP & move to far right	1	1	12FEB09	12FEB09	84	2,005.68							
3-1-6.06		Remove the left MCHP test laser path	2	1	13FEB09	16FEB09	84	21,469.60							
3-1-6.07		Place left MCHP in temp location	0	1	17FEB09	16FEB09	84	0.00							
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Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
Install Vacuum Vessel														
3-1-7.02		Install VV NBI port support stand.	2	1	17FEB09	18FEB09	84	4,011.36						
3-1-7.03		Install VVSA to base support and make connection	1	1	19FEB09	19FEB09	84	2,005.68						
3-1-7.04		take tooling ball readings and secure VVSA	2	1	20FEB09	23FEB09	84	4,011.36						
3-1-7.05		Scan VV surface and compare data	3	1	24FEB09	26FEB09	84	7,096.32						
Install RIGHT MCHP over VV														
3-1-8.01		Install any bumper protection components on the	1	1	27FEB09	27FEB09	84	1,002.84						
3-1-8.03		Install MCHP lift fixture, disengage leveler	2	1	02MAR09	03MAR09	84	4,011.36						
3-1-8.04		Re-install the right adjustor bar.	0	1	04MAR09	03MAR09	84	0.00						
3-1-8.05		Move right MCHP over the VV	3	1	04MAR09	06MAR09	84	19,130.40						
3-1-8.06		Position right MCHP over right support	2	1	09MAR09	10MAR09	84	8,022.72						
3-1-8.07		Bring AirLoc Wedgemount leveler up to take load	1	1	11MAR09	11MAR09	84	2,005.68						
3-1-8.08		Measure the target monuments on right MCHP with	1	1	12MAR09	12MAR09	84	2,365.44						
3-1-8.09		move MCHP to right 1/2"	0	1	13MAR09	12MAR09	84	0.00						
Install LEFT MCHP over VV														
3-1-9.02		Move left MCHP over VV to within 1/2"	3	1	13MAR09	17MAR09	84	19,130.40						
3-1-9.03		Using adjustor bar move right MCHP back	1	1	18MAR09	18MAR09	84	1,002.84						
3-1-9.05		Position left MCHP over left support	1	1	19MAR09	19MAR09	84	4,011.36						
3-1-9.06		Bring AirLoc Wedgemount leveler up to take load	1	1	20MAR09	20MAR09	84	1,002.84						
3-1-9.061		Measure the target monuments on right MCHP	1	1	23MAR09	23MAR09	84	2,365.44						
3-1-9.07		Remove laser screens to provide more flr space	1	1	24MAR09	24MAR09	84	2,005.68						
3-1-9.08		Install temporary scaffolding to install flange	2	1	25MAR09	26MAR09	84	4,011.36						
3-1-9.09		Install bolts and all outboard alumina shims.	2	1	27MAR09	30MAR09	84	4,011.36						
3-1-9.1		Tighten flange fasteners to 50%	1	1	31MAR09	31MAR09	84	2,005.68						
3-1-9.11		Make a hand "wiggle" test (rotate on bolt)	2	1	01APR09	02APR09	84	4,011.36						
3-1-9.12		Perform metrology measurements of all alignment	4	1	03APR09	08APR09	84	9,461.76						
3-1-9.13		Perform position adjustments on left side MCHP	3	1	09APR09	13APR09	84	6,017.04						
3-1-9.14		Remove SISCO actuator from left MCHP.	0	1	14APR09	13APR09	84	0.00						
3-1-9.15		Machine and install bushings	3	1	14APR09	16APR09	84	6,017.04						
3-1-9.16		Tighten nuts 100%. Re-verify adequate MCHP ali	2	1	17APR09	20APR09	84	8,742.24						
Weld inboard shims & fill bushing gaps														
3-1-10.01		Weld inboard shims solenoid side	4	1	21APR09	24APR09	84	20,618.88						
3-1-10.02		Measure the positions of all monuments	2	1	27APR09	28APR09	84	4,730.88						
3-1-10.03		Fill all lose bushings with Stycast 2850FT	2	1	29APR09	30APR09	84	4,011.36						
3-1-10.04		Measure the monuments on all coils.	3	1	01MAY09	05MAY09	84	7,096.32						
VVSA attachment to MC's														
3-1-11.01		Attach permanent VV supports to Type A MC	2	1	06MAY09	07MAY09	84	8,022.72						
3-1-11.02		Attach temp VV supports to Type B MC	2	1	08MAY09	11MAY09	84	8,022.72						
3-1-11.03		Disconnect base support and transfer load to VV	1	1	12MAY09	12MAY09	84	4,011.36						
3-1-11.04		Install VV lateral supports and align VVSA	2	1	13MAY09	14MAY09	84	8,022.72						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
3-1-11.05		Prepare VVSA for transport. Install blocking	2	1	15MAY09	18MAY09	84	8,022.72						
Transfer to Station 5														
3-1-12.01		Instl rigging to MCWF transfer to support frame	2	1	19MAY09	20MAY09	84	8,022.72						
3-1-12.02		Transfer to Station 5 located in NCSX TC	2	1	21MAY09	22MAY09	84	8,022.72						
S31-10.02M	2	Complete 1st MC-VV Assy (Sta 3)	0	1		22MAY09	84	0.00						
Station 3-Assemble Mod Coils and VVSA-FP#2														
Misc Prep activities														
3-0-PLAT.2		Install station 3 platforms FP#2(8 required)	10	1	17MAR09	30MAR09	98	23,399.60						
Set-up and Prep														
3-2-1.04		Install MCHP left support stand. Position to .0	3	1	23MAR09	25MAR09	98	10,927.80						
3-2-1.05		Install the MCHP right support stand;	3	1	26MAR09	30MAR09	98	5,014.20						
Pre-assemble LEFT MCHP														
3-2-2.01		Position left MCHP over left support	1	1	31MAR09	31MAR09	98	3,342.80						
3-2-2.02		Secure left MCHP to vertical support posts	1	1	01APR09	01APR09	98	1,671.40						
3-2-2.03		Measure all chosen monuments	2	1	02APR09	03APR09	98	3,942.40						
3-2-2.04		Measure the Type-A and Type-C end flanges while	2	1	06APR09	07APR09	98	3,942.40						
3-2-2.05		Allow time for the back office to review the me	2	1	08APR09	09APR09	98	3,942.40						
3-2-2.06		Mark nose shim locations & pucks	1	1	08APR09	08APR09	98	1,671.40						
Pre-assemble RIGHT MCHP														
3-2-3.01		Move the right support cart in the far right lo	0	1	09APR09	08APR09	98	0.00						
3-2-3.02		Position right MCHP over right support	1	1	25JUN09	25JUN09	44	3,342.80						
3-2-3.03		Secure right MCHP to support base	1	1	26JUN09	26JUN09	44	1,671.40						
3-2-3.04		Measure the target monuments on right MCHP with	2	1	29JUN09	30JUN09	44	3,942.40						
3-2-3.05		Measure the Type-A and Type-C end flanges while	2	1	01JUL09	02JUL09	44	3,942.40						
3-2-3.06		Allow time for the back office to review the me	4	1	06JUL09	09JUL09	44	7,884.80						
3-2-3.07		Mark nose shim locations	1	1	06JUL09	06JUL09	44	1,671.40						
3-2-3.08		Define all outboard shim thicknesses	0	1	07JUL09	06JUL09	44	0.00						
Pre-assemble LEFT and RIGHT MCHP														
3-2-4.01		Place alumina shims (4-8) onleft side type A	1	1	07JUL09	07JUL09	44	1,671.40						
3-2-4.02		Temp lift right MCHP and move support cart	1	1	08JUL09	08JUL09	44	1,671.40						
3-2-4.03		Position right MCHP over right support	1	1	09JUL09	09JUL09	44	3,342.80						
3-2-4.04		Bring Air Loc wedgemeount leveler to take load	1	1	10JUL09	10JUL09	44	1,671.40						
3-2-4.05		Measure the target monuments on left MCHP with	2	1	13JUL09	14JUL09	44	3,942.40						
3-2-4.06		Install temporary scaffolding to install flange	1	1	13JUL09	13JUL09	45	3,342.80						
3-2-4.07		Instl remaining alumina shims; instl nuts/studs	2	1	15JUL09	16JUL09	44	3,342.80						
3-2-4.08		Make a hand "wiggle" test (rotate on bolt) on a	2	1	17JUL09	20JUL09	44	3,342.80						
3-2-4.09		Tighten flange fasteners to 50%	1	1	21JUL09	21JUL09	44	1,671.40						
3-2-4.10		measure the position of all monuments	1	1	22JUL09	22JUL09	44	1,971.20						
3-2-4.11		Measure the shim puck height (at a number of po	2	1	23JUL09	24JUL09	44	7,285.20						
3-2-4.111		Fit and tack weld flex shims in place	3	1	27JUL09	29JUL09	44	5,014.20						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12	FY13	
Install LEFT MCHP over VV															
3-2-9.02		Move left MCHP over VV to within 1/2"	3	1	13OCT09	15OCT09	44	16,407.60							
3-2-9.03		Using adjustor bar move right MCHP back	1	1	16OCT09	16OCT09	44	860.10							
3-2-9.05		Position left MCHP over left support	1	1	19OCT09	19OCT09	44	3,440.40							
3-2-9.06		Bring AirLoc Wedgemount leveler up to take load	1	1	20OCT09	20OCT09	44	860.10							
3-2-9.061		Measure the target monuments on right MCHP	1	1	21OCT09	21OCT09	44	2,028.80							
3-2-9.07		Remove laser screens to provide more fir space	1	1	22OCT09	22OCT09	44	1,720.20							
3-2-9.08		Install temporary scaffolding to install flange	2	1	23OCT09	26OCT09	44	3,440.40							
3-2-9.09		Install bolts and all outboard alumina shims.	2	1	27OCT09	28OCT09	44	3,440.40							
3-2-9.1		Tighten flange fasteners to 50%	1	1	29OCT09	29OCT09	44	1,720.20							
3-2-9.11		Make a hand "wiggle" test (rotate on bolt)	2	1	30OCT09	02NOV09	44	3,440.40							
3-2-9.12		Perform metrology measurements of all alignment	4	1	03NOV09	06NOV09	44	8,115.20							
3-2-9.13		Perform position adjustments on left side MCHP	3	1	09NOV09	11NOV09	44	5,160.60							
3-2-9.14		Remove SISCO actuator from left MCHP.	0	1	12NOV09	11NOV09	44	0.00							
3-2-9.15		Machine and install bushings	3	1	12NOV09	16NOV09	44	5,160.60							
3-2-9.16		Tighten nuts 100%. Re-verify adequate MCHP ali	2	1	17NOV09	18NOV09	44	7,498.00							
Weld inboard shims & fill bushing gaps															
3-2-10.01		Weld inboard shims solenoid side	4	1	19NOV09	24NOV09	44	14,996.00							
3-2-10.02		Measure the positions of all monuments	2	1	25NOV09	30NOV09	44	4,057.60							
3-2-10.03		Fill all lose bushings with Stycast 2850FT	2	1	01DEC09	02DEC09	44	3,440.40							
3-2-10.04		Measure the monuments on all coils.	3	1	03DEC09	07DEC09	44	6,086.40							
VVSA attachment to MC's															
3-2-11.01		Attach permanent VV supports to Type A MC	2	1	08DEC09	09DEC09	44	6,880.80							
3-2-11.02		Attach temp VV supports to Type B MC	2	1	10DEC09	11DEC09	44	6,880.80							
3-2-11.03		Disconnect base support and transfer load to VV	1	1	14DEC09	14DEC09	44	3,440.40							
3-2-11.04		Install VV lateral supports and align VVSA	2	1	15DEC09	16DEC09	44	6,880.80							
3-2-11.05		Prepare VVSA for transport. Install blocking	2	1	17DEC09	18DEC09	44	6,880.80							
Transfer to Station 5															
3-2-12.01		Instl rigging to MCWF transfer to support frame	2	1	21DEC09	22DEC09	44	6,880.80							
3-2-12.02		Transfer to Station 5 located in NCSX TC	2	1	04JAN10	05JAN10	44	6,880.80							
S32-10.02M	2	Complete 2nd MC-VV Assy (Sta 3)	0	1		05JAN10	44	0.00							
Station 3-Assemble Mod Coils and VVSA-FP#3															
Misc Prep activities															
3-0-PLAT.3		Install station 3 platforms FP#3(8 required)	10	1	30JUL09	12AUG09	51	23,399.60							
Pre-assemble LEFT MCHP															
3-3-2.01		Position left MCHP over left support	1	1	13AUG09	13AUG09	51	3,342.80							
3-3-2.02		Secure left MCHP to vertical support posts	1	1	14AUG09	14AUG09	51	1,671.40							
3-3-2.03		Measure all chosen monuments	2	1	17AUG09	18AUG09	51	3,942.40							
3-3-2.04		Measure the Type-A and Type-C end flanges while	2	1	19AUG09	20AUG09	51	3,942.40							
3-3-2.05		Allow time for the back office to review the me	2	1	21AUG09	24AUG09	51	3,942.40							

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12	FY13	
Weld inboard shims & fill bushing gaps															
3-3-10.01		Weld inboard shims solenoid side	2	2	08MAR10	09MAR10	0	17,670.00				EM/TB =80hr ; ZMET =64 ;			
3-3-10.02		Measure the positions of all monuments	1	2	10MAR10	10MAR10	0	4,057.60				ZMET =32 ; EM//TB =00hr ;			
3-3-10.03		Fill all lose bushings with Stycast 2850FT	1	2	11MAR10	11MAR10	0	3,440.40				EM//TB =40hr ;			
3-3-10.04		Measure the monuments on all coils.	2	2	12MAR10	15MAR10	0	6,086.40				ZMET =48 ; EM//TB =00hr ;			
VVSA attachment to MC's															
3-3-11.01		Attach permanent VV supports to Type A MC	1	2	16MAR10	16MAR10	0	6,880.80				EM//TB =80hr ;			
3-3-11.02		Attach temp VV supports to Type B MC	1	2	17MAR10	17MAR10	0	6,880.80				EM//TB =80hr ;			
3-3-11.03		Disconnect base support and transfer load to VV	1	2	18MAR10	18MAR10	0	3,440.40				EM//TB =40hr ;			
3-3-11.04		Install VV lateral supports and align VVSA	1	2	19MAR10	19MAR10	0	6,880.80				EM//TB =80hr ;			
3-3-11.05		Prepare VVSA for transport. Install blocking	1	2	22MAR10	22MAR10	0	6,880.80				EM//TB =80hr ;			
Transfer to Station 5															
3-3-12.01		Instl rigging to MCWF transfer to support frame	1	2	23MAR10	23MAR10	0	6,880.80				EM//TB =80hr ;			
3-3-12.02		Transfer to Station 5 located in NCSX TC	1	2	24MAR10	24MAR10	0	6,880.80				EM//TB =80hr ;			
S33-10.02M	2	Complete 3rd MC-VV Assy (Sta 3)	0	2		24MAR10	0	0.00							
Job: 1815 - Field Period Assy -Station 5-VIOLA															
Setup/Preparations/General															
5-1-1.01		Cut short dome port FPA #1	12	1	02MAR09	17MAR09	44	22,668.80				EM//TB =240hr ; 41=02\$K ;			
5-2-1.01		Cut short dome port FPA #2	5	1	18DEC09	05JAN10	44	8,601.00				EM//TB =100hr ;			
5-3-1.01		Cut short dome port FPA #3	5	1	18MAR10	24MAR10	0	9,938.00				EM//TB =100hr ; 41=01\$K ;			
R1810-5100		Bolt on 2 port Extensions needed for Diag	1	1	22MAY09*	22MAY09	84	1,337.12				em//tb=16			
R1810-5101		MTM NCR hardware re-purchase	100	1	20NOV08*	21APR09	84	84,890.00				 41=65\$K ;			
R1810-5112		Weld wire & welding supplies	25	1	18MAR09*	21APR09	84	2,612.00				 41=15\$K ;			
R1810-5104		Misc for tooling	10	1	11MAY09*	22MAY09	84	19,590.00				 41=15			
R1810-5201		Procure 4 25ton chainfalls	65	1	23FEB09	22MAY09	84	58,770.00				 41=45			
R1810-5202		Load test heavy slings	65	1	23FEB09*	22MAY09	84	3,918.00				 41=3			
R1810-5203		Modify station 3 platforms for station 5	65	1	23FEB09*	22MAY09	84	25,700.40				 41=12;em//tb=120			
R1810-5204		Portable platforms for station 5	65	1	23FEB09*	22MAY09	84	3,918.00				 41=18			
R1810-5106		Testout Sta 5 equipt & procedures	5	1	22APR09	28APR09	84	13,371.20				EM//TB =160hr ;			
R1810-5107		Check 3 sled interfaces adjust holes	12	1	29APR09	14MAY09	84	32,090.88				EM//TB =384hr ;			
R1810-5108		Fixtures installed-final metrology	6	1	15MAY09	22MAY09	84	8,022.72				EM//TB =96hr ;			
Station 5- Final FP Assy -FP#1 (in NCSX TC)															
Pre-Installation setup															
R1810-5109		Begin Station 5 Operations	0	1		22MAY09	84	0.00							
5-1-2.01		Install period support fixture	5	1	26MAY09	01JUN09	84	10,028.40				EM//TB =120hr ;			
5-1-2.02		Temporarily position/support lower trim coils t	1	1	02JUN09	02JUN09	84	2,005.68				EM//TB =24hr ;			
5-1-2.03		Install FPA on support stand. Use leveler pad	2	1	03JUN09	04JUN09	84	4,011.36				EM//TB =48hr ;			
5-1-2.04		Install external working platforms	3	1	05JUN09	09JUN09	84	6,017.04				EM//TB =72hr ;			
5-1-2.045		Fab internal VV working platforms	20	1	12MAY09	09JUN09	84	20,056.80				EM//TB =240hr ;			

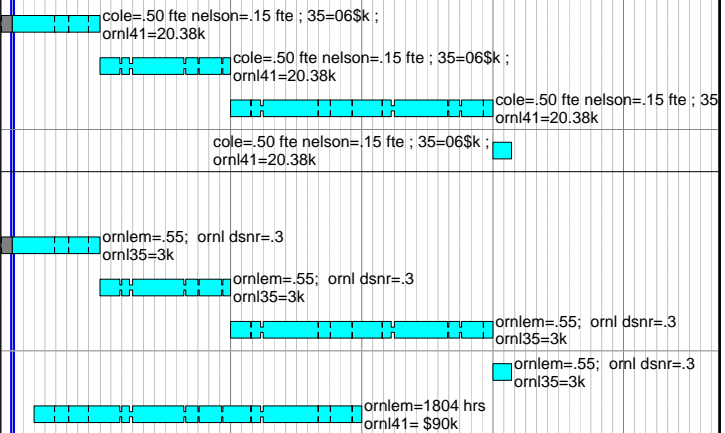
Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
5-1-2.05		Install internal VV working platforms	3	1	10JUN09	12JUN09	84	8,629.04						
VV Port Installation														
5-1-3.01		Install the domes (left and right side), insert	2	1	15JUN09	16JUN09	84	8,692.96						
5-1-3.02		Install small dome ports and remaining circular	24	1	17JUN09	21JUL09	84	87,422.40						
5-1-3.03		Leak check each port immediately after it is we	24	1	24JUN09	28JUL09	84	40,113.60						
Install Port Boots														
5-1-4.01		Install boots on all ports except for port 4's	12	1	14JUL09	29JUL09	84	10,028.40						
TF Coils, structurues & port 12 trim coils														
5-1-5.01		Make MC N2 serv connections on MC run N2 lines	6	1	30JUL09	06AUG09	84	12,034.08						
5-1-5.011		Run thermocouple and strain gage lines	2	1	07AUG09	10AUG09	84	3,342.80						
5-1-5.02		Instll MC feet leveling struct	1	1	11AUG09	11AUG09	84	2,005.68						
5-1-5.03		Install outward facing TF supports	1	1	12AUG09	12AUG09	84	1,002.84						
5-1-5.04		Bolt in place Port 12 trim coil brackets	1	1	13AUG09	13AUG09	84	2,005.68						
5-1-5.05		Bolt part of Port 12 trim coil suprts	1	1	14AUG09	14AUG09	84	2,005.68						
5-1-5.06		Position two TF coils over the "C" MC.	2	1	17AUG09	18AUG09	84	4,011.36						
5-1-5.07		Move TF coil over the right "A" MC.	1	1	19AUG09	19AUG09	84	2,005.68						
5-1-5.08		Install the Type-A TF coil support brackets	2	1	20AUG09	21AUG09	84	4,011.36						
5-1-5.09		Instl local MC lead stem right Type-B MC	2	1	24AUG09	25AUG09	84	3,342.80						
5-1-5.1		Install TF coils left side of Period assembly	6	1	26AUG09	02SEP09	84	12,034.08						
5-1-5.11		Install remaining TF/trim support brackets	2	1	03SEP09	04SEP09	84	4,011.36						
5-1-5.12		Bolt port 4 trim coil to trim coil brackets	2	1	08SEP09	09SEP09	84	4,011.36						
5-1-5.13		Bolt port 4 trim coil to trim coil brackets	4	1	10SEP09	15SEP09	84	8,022.72						
Slanted trim coils & support structure														
5-1-6.01		position 4 slanted trim coils behind TF coils	1	2	16SEP09	16SEP09	84	2,005.68						
5-1-6.02		Install the magnet systems support structure	1	2	17SEP09	17SEP09	84	3,342.80						
5-1-6.03		Attach channel struct on magnet struct	1	2	18SEP09	18SEP09	84	2,005.68						
5-1-6.04		Attach additional support structure struts	1	2	21SEP09	21SEP09	84	4,011.36						
5-1-6.05		MC leads will be supported off magnet struct	1	2	22SEP09	22SEP09	84	3,342.80						
5-1-6.06		Metrology measurements of each trim coil	2	2	23SEP09	24SEP09	84	17,509.12						
5-1-6.07		Install I&C into junction boxes design TBD	2	1	25SEP09	28SEP09	116	3,342.80						
MC coolant connections & services runs														
5-1-11.08		Check manifolds (pressure, flow, etc.	3	2	28SEP09	30SEP09	113	17,840.40						
5-1-7.01		Install top and bottom MC coolant headers. .	1	2	25SEP09	25SEP09	84	6,685.60						
5-1-7.02		Bring MC strain gage & TC lines through	1	2	28SEP09	28SEP09	84	3,342.80						
5-1-7.03		Grounding connections	1	2	29SEP09	29SEP09	84	3,342.80						
TF fitup, Port 4's & diagnostics														
5-1-8.01		Perform a fit-up check of the four TF coils	3	2	30SEP09	02OCT09	84	34,623.33						
5-1-9.01		Tack weld the left and right port 4's.	1	2	05OCT09	05OCT09	84	8,256.96						
5-1-9.02		Install boots on both port 4's.	1	2	06OCT09	06OCT09	84	8,256.96						
5-1-10.01		Install Rogowski coils on end of VV left side	3	2	07OCT09	09OCT09	84	40,459.36						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12	FY13	
PF Struct, Final measurement & Transfer															
5-1-11.00		Obtain Period 1 alignment fiducial positions	3	2	12OCT09	14OCT09	84	0.00							
5-1-11.01		Align to tooling balls on each MCHP	1	2	15OCT09	15OCT09	84	2,028.80				ZMET =16 ;			
5-1-11.02		Adjust VV supports to secure VV in place.	2	2	16OCT09	19OCT09	84	18,020.56				EM/TB =96hr ; ZMET =77 ;			
5-1-11.03		Install 3 primary fiducials for positioning	1	2	20OCT09	20OCT09	84	4,057.60				ZMET =32 ;			
5-1-11.04		Make a final measurement of all fiducials	3	2	21OCT09	23OCT09	84	12,172.80				ZMET =96 ;			
5-1-11.05		Acceptance test and Back Office approve data	2	2	26OCT09	27OCT09	84	0.00				EM/TB =00hr ;			
5-1-11.06		Check Assembly (bolts, etc)	3	2	28OCT09	30OCT09	84	18,361.68				EM/TB =120hr ; EM/EM =48hr ;			
5-1-11.07		Check Diagnostics (loops, thermocouples)	1	2	02NOV09	02NOV09	84	6,120.56				EM/TB =40hr ; EM/EM =16hr ;			
5-1-11.09		Check 6 modular coils (voltage etc)	2	2	03NOV09	04NOV09	84	9,180.84				EM/TB =60hr ; EM/EM =24hr ;			
5-1-11.1		Check trim coils (voltage etc)	2	2	05NOV09	06NOV09	84	11,050.51				EM/TB =72hr ; EM/EM =29hr ;			
5-1-11.11		Check TF coils (voltage etc)	1	2	09NOV09	09NOV09	84	6,120.56				EM/TB =40hr ; EM/EM =16hr ;			
5-1-12.01		Install crane rigging	1	2	10NOV09	10NOV09	84	8,256.96				EM/TB =96hr ;			
5-1-12.02		Remove platforms	1	2	11NOV09	11NOV09	84	4,128.48				EM/TB =48hr ;			
5-1-12.03		Weigh&transfer FPA to Station 6 in NCSX tc.	1	2	12NOV09	12NOV09	84	14,674.56				EM/TB =96hr ; 41=05\$K ;			
S51-14.03M	2	Complete 1st Field Period Assy (Sat. 5)	0	2		12NOV09	84	0.00							
Station 5- Final FP Assy -FP#2 (in NCSX TC)															
Pre-Installation setup															
5-2-2.01		Install period support fixture	5	1	06JAN10	12JAN10	44	8,601.00				EM/TB =100hr ;			
5-2-2.02		Temporarily position/support lower trim coils t	1	1	13JAN10	13JAN10	44	1,720.20				EM/TB =20hr ;			
5-2-2.03		Install FPA on support stand. Use leveler pad	2	1	14JAN10	15JAN10	44	3,440.40				EM/TB =40hr ;			
5-2-2.04		Install external working platforms	3	1	18JAN10	20JAN10	44	5,160.60				EM/TB =60hr ;			
5-2-2.05		Install internal VV working platforms	3	1	21JAN10	25JAN10	44	18,530.60				EM/TB =60hr ; 41=10\$K ;			
VV Port Installation															
5-2-3.01		Install the domes (left and right side), insert	2	1	26JAN10	27JAN10	44	7,498.00				EM/TB =40hr ; ZMET =32 ;			
5-2-3.02		Install small dome ports and remaining circular	24	1	28JAN10	02MAR10	44	89,976.00				EM/TB =480hr ; ZMET =384 ;			
5-2-3.03		Leak check each port immediately after it is we	24	1	04FEB10	09MAR10	44	41,284.80				EM/TB =480hr ;			
Install Port Boots															
5-2-4.01		Install boots on all ports except for port 4's	12	1	23FEB10	10MAR10	44	20,642.40				EM/TB =240hr ;			
TF Coils, structurues & port 12 trim coils															
5-2-5.01		Make MC N2 serv connections on MC run N2 lines	6	1	11MAR10	18MAR10	44	10,321.20				EM/TB =120hr ;			
5-2-5.011		Run thermocouple and strain gage lines	2	1	19MAR10	22MAR10	44	3,440.40				EM/TB =40hr ;			
5-2-5.02		Instll MC feet leveling struct	1	1	23MAR10	23MAR10	44	1,720.20				EM/TB =20hr ;			
5-2-5.03		Install outward facing TF supports	1	1	24MAR10	24MAR10	44	860.10				EM/TB =10hr ;			
5-2-5.04		Bolt in place Port 12 trim coil brackets	1	1	25MAR10	25MAR10	44	1,720.20				EM/TB =20hr ;			
5-2-5.05		Bolt part of Port 12 trim coil suprts	1	1	26MAR10	26MAR10	44	1,720.20				EM/TB =20hr ;			
5-2-5.06		Position two TF coils over the "C" MC.	2	1	29MAR10	30MAR10	44	3,440.40				EM/TB =40hr ;			
5-2-5.07		Move TF coil over the right "A" MC.	1	1	31MAR10	31MAR10	44	1,720.20				EM/TB =20hr ;			
5-2-5.08		Install the Type-A TF coil support brackets	2	1	01APR10	02APR10	44	3,440.40				EM/TB =40hr ;			
5-2-5.09		Instl local MC lead stem right Type-B MC	2	1	05APR10	06APR10	44	3,440.40				EM/TB =40hr ;			
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Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12	FY13	
5-2-5.1		Install TF coils left side of Period assembly	6	1	07APR10	14APR10	44	10,321.20				EM/TB =120hr ;			
5-2-5.11		Install remaining TF/trim support brackets	2	1	15APR10	16APR10	44	3,440.40				EM/TB =40hr ;			
5-2-5.12		Bolt port 4 trim coil to trim coil brackets	2	1	19APR10	20APR10	44	3,440.40				EM/TB =40hr ;			
5-2-5.13		Bolt port 4 trim coil to trim coil brackets	4	1	21APR10	26APR10	44	6,880.80				EM/TB =80hr ;			
Slanted trim coils & support structure															
5-2-6.01		position 4 slanted trim coils behind TF coils	1	2	27APR10	27APR10	44	1,720.20				EM/TB =20hr ;			
5-2-6.02		Install the magnet systems support structure	1	2	28APR10	28APR10	44	16,435.60				41=02\$K ; EM/TB =160hr ;			
5-2-6.03		Attach channel struct on magnet struct	1	2	29APR10	29APR10	44	3,440.40				EM/TB =40hr ;			
5-2-6.04		Attach additional support structure struts	1	2	30APR10	30APR10	44	3,440.40				EM/TB =40hr ;			
5-2-6.05		MC leads will be supported off magnet struct	1	2	03MAY10	03MAY10	44	7,451.40				41=03\$K ; EM/TB =40hr ;			
5-2-6.06		Metrology measurements of each trim coil	2	2	04MAY10	05MAY10	44	14,996.00				EM/TB =80hr ; ZMET =64 ;			
5-2-6.07		Install I&C into junction boxes design TBD	2	1	06MAY10	07MAY10	71	7,451.40				EM/TB =40hr ; 41=03\$K ;			
MC coolant connections & services runs															
5-2-7.01		Install top and bottom MC coolant headers. .	1	2	06MAY10	06MAY10	44	10,891.80				41=03\$K ; EM/TB =80hr ;			
5-2-11.08		Check manifolds (pressure, flow, etc.	3	2	07MAY10	11MAY10	69	15,301.40				EM/TB =100hr ; EM/EM =40hr ;			
5-2-7.02		Bring MC strain gage & TC lines through	1	2	07MAY10	07MAY10	44	6,114.40				41=02\$K ; EM/TB =40hr ;			
5-2-7.03		Grounding connections	1	2	10MAY10	10MAY10	44	6,114.40				41=02\$K ; EM/TB =40hr ;			
TF fitup, Port 4's & diagnostics															
5-2-8.01		Perform a fit-up check of the four TF coils	2	2	11MAY10	12MAY10	44	41,639.00				ZMET =140 ; 41=05\$K ; EM/TB =200hr ;			
5-2-9.01		Tack weld the left and right port 4's.	1	2	13MAY10	13MAY10	44	6,880.80				EM/TB =80hr ;			
5-2-9.02		Install boots on both port 4's.	1	2	14MAY10	14MAY10	44	6,880.80				EM/TB =80hr ;			
5-2-10.01		Install Rogowski coils on end of VV left side	3	2	17MAY10	19MAY10	44	33,721.12				EM/EM =15hr ; EM/SM =144hr ; EM/TB =07hr ; ZMET =80 ;			
PF Struct, Final measurement & Transfer															
5-2-11.00		Obtain Period 1 alignment fiducial positions	0	2	20MAY10	19MAY10	44	0.00							
5-2-11.01		Align to tooling balls on each MCHP	1	2	20MAY10	20MAY10	44	2,028.80				ZMET =16 ;			
5-2-11.02		Adjust VV supports to secure VV in place.	2	2	21MAY10	24MAY10	44	14,996.00				EM/TB =80hr ; ZMET =64 ;			
5-2-11.03		Install 3 primary fiducials for positioning	1	2	25MAY10	25MAY10	44	4,057.60				ZMET =32 ;			
5-2-11.04		Make a final measurement of all fiducials	2	2	26MAY10	27MAY10	44	10,144.00				ZMET =80 ;			
5-2-11.05		Acceptance test and Back Office approve data	2	2	28MAY10	01JUN10	44	0.00				EM/TB =00hr ;			
5-2-11.06		Check Assembly (bolts, etc)	3	2	02JUN10	04JUN10	44	15,301.40				EM/TB =100hr ; EM/EM =40hr ;			
5-2-11.07		Check Diagnostics (loops, thermocouples)	1	2	07JUN10	07JUN10	44	6,120.56				EM/TB =40hr ; EM/EM =16hr ;			
5-2-11.09		Check 6 modular coils (voltage etc)	2	2	08JUN10	09JUN10	44	9,180.84				EM/TB =60hr ; EM/EM =24hr ;			
5-2-11.1		Check trim coils (voltage etc	2	2	10JUN10	11JUN10	44	9,180.84				EM/TB =60hr ; EM/EM =24hr ;			
5-2-11.11		Check TF coils (voltage etc	2	2	14JUN10	15JUN10	44	6,120.56				EM/TB =40hr ; EM/EM =16hr ;			
5-2-12.01		Install crane rigging	1	2	16JUN10	16JUN10	44	6,880.80				EM/TB =80hr ;			
5-2-12.02		Remove platforms	1	2	17JUN10	17JUN10	44	3,440.40				EM/TB =40hr ;			
5-2-12.03		Weigh&transfer FPA to Station 6 in NCSX tc.	1	2	18JUN10	18JUN10	44	12,228.80				EM/TB =80hr ; 41=04\$K ;			
S52-14.03M	2	Complete 2nd Field Period Assy. (Sta.5)	0	2		18JUN10	44	0.00							

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
Station 5- Final FP Assy -FP#3 (in NCSX TC)														
Pre-Installation setup														
5-3-2.01		Install period support fixture	2	2	25MAR10	26MAR10	0	8,601.00						
5-3-2.02		Temporarily position/support lower trim coils t	1	2	29MAR10	29MAR10	0	1,720.20						
5-3-2.03		Install FPA on support stand. Use leveler pad	1	2	30MAR10	30MAR10	0	3,440.40						
5-3-2.04		Install external working platforms	2	2	31MAR10	01APR10	0	5,160.60						
5-3-2.05		Install internal VV working platforms	1	2	02APR10	02APR10	0	18,530.60						
VV Port Installation														
5-3-3.01		Install the domes (left and right side), insert	2	1	05APR10	06APR10	0	7,498.00						
5-3-3.02		Install small dome ports and remaining circular	24	1	07APR10	10MAY10	0	89,976.00						
5-3-3.03		Leak check each port immediately after it is we	24	1	14APR10	17MAY10	0	41,284.80						
Install Port Boots														
5-3-4.01		Install boots on all ports except for port 4's	12	1	03MAY10	18MAY10	0	20,642.40						
TF Coils, structurues & port 12 trim coils														
5-3-5.01		Make MC N2 serv connections on MC run N2 lines	3	2	19MAY10	21MAY10	0	10,321.20						
5-3-5.011		Run thermocouple and strain gage lines	1	2	24MAY10	24MAY10	0	3,440.40						
5-3-5.02		Instll MC feet leveling struct	1	2	25MAY10	25MAY10	0	1,720.20						
5-3-5.03		Install outward facing TF supports	1	2	26MAY10	26MAY10	0	860.10						
5-3-5.04		Bolt in place Port 12 trim coil brackets	1	2	27MAY10	27MAY10	0	1,720.20						
5-3-5.05		Bolt part of Port 12 trim coil suprts	1	2	28MAY10	28MAY10	0	1,720.20						
5-3-5.06		Position two TF coils over the "C" MC.	1	2	01JUN10	01JUN10	0	3,440.40						
5-3-5.07		Move TF coil over the right "A" MC.	1	2	02JUN10	02JUN10	0	1,720.20						
5-3-5.08		Install the Type-A TF coil support brackets	1	2	03JUN10	03JUN10	0	3,440.40						
5-3-5.09		Instl local MC lead stem right Type-B MC	1	2	04JUN10	04JUN10	0	3,440.40						
5-3-5.1		Install TF coils left side of Period assembly	3	2	07JUN10	09JUN10	0	10,321.20						
5-3-5.11		Install remaining TF/trim support brackets	1	2	10JUN10	10JUN10	0	3,440.40						
5-3-5.12		Bolt port 4 trim coil to trim coil brackets	1	2	11JUN10	11JUN10	0	3,440.40						
5-3-5.13		Bolt port 4 trim coil to trim coil brackets	2	2	14JUN10	15JUN10	0	6,880.80						
Slanted trim coils & support structure														
5-3-6.01		position 4 slanted trim coils behind TF coils	1	2	16JUN10	16JUN10	0	1,720.20						
5-3-6.02		Install the magnet systems support structure	1	2	17JUN10	17JUN10	0	6,114.40						
5-3-6.03		Attach channel struct on magnet struct	1	2	18JUN10	18JUN10	0	3,440.40						
5-3-6.04		Attach additional support structure struts	1	2	21JUN10	21JUN10	0	3,440.40						
5-3-6.05		MC leads will be supported off magnet struct	1	2	22JUN10	22JUN10	0	7,451.40						
5-3-6.06		Metrology measurements of each trim coil	2	2	23JUN10	24JUN10	0	14,996.00						
5-3-6.07		Install I&C into junction boxes design TBD	2	1	25JUN10	28JUN10	29	7,451.40						
MC coolant connections & services runs														
5-3-7.01		Install top and bottom MC coolant headers. .	1	2	25JUN10	25JUN10	0	10,891.80						
5-3-7.02		Bring MC strain gage & TC lines through	1	2	28JUN10	28JUN10	0	6,114.40						
5-3-7.03		Grounding connections	1	2	29JUN10	29JUN10	0	6,114.40						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
5-3-11.08		Check manifolds (pressure, flow, etc.	3	2	28JUN10	30JUN10	27	15,301.40						
TF fitup, Port 4's & diagnostics														
5-3-8.01		Perform a fit-up check of the four TF coils	2	2	30JUN10	01JUL10	0	41,639.00						
5-3-9.01		Tack weld the left and right port 4's.	1	2	02JUL10	02JUL10	0	6,880.80						
5-3-9.02		Install boots on both port 4's.	1	2	06JUL10	06JUL10	0	6,880.80						
5-3-10.01		Install Rogowski coils on end of VV left side	3	2	07JUL10	09JUL10	0	33,721.12						
PF Struct, Final measurement & Transfer														
5-3-11.000		Install PF support structure (WBS 7)	0	2	12JUL10	09JUL10	0	0.00						
5-3-11.00		Obtain Period 1 alignment fiducial positions	3	2	12JUL10	14JUL10	0	0.00						
5-3-11.01		Align to tooling balls on each MCHP	1	2	15JUL10	15JUL10	0	2,028.80						
5-3-11.02		Adjust VV supports to secure VV in place.	2	2	16JUL10	19JUL10	0	14,996.00						
5-3-11.03		Install 3 primary fiducials for positioning	1	2	20JUL10	20JUL10	0	4,057.60						
5-3-11.04		Make a final measurement of all fiducials	2	2	21JUL10	22JUL10	0	10,144.00						
5-3-11.05		Acceptance test and Back Office approve data	2	2	23JUL10	26JUL10	0	0.00						
5-3-11.06		Check Assembly (bolts, etc)	3	2	27JUL10	29JUL10	0	15,301.40						
5-3-11.07		Check Diagnostics (loops, thermocouples)	1	2	30JUL10	30JUL10	0	6,120.56						
5-3-11.09		Check 6 modular coils (voltage etc)	2	2	02AUG10	03AUG10	0	9,180.84						
5-3-11.1		Check trim coils (voltage etc	2	2	04AUG10	05AUG10	0	9,180.84						
5-3-11.11		Check TF coils (voltage etc	1	2	06AUG10	06AUG10	0	6,120.56						
5-3-12.01		Install crane rigging	1	2	09AUG10	09AUG10	0	6,880.80						
5-3-12.02		Remove platforms	1	2	10AUG10	10AUG10	0	3,440.40						
5-3-12.03		Weigh&transfer FPA to Station 6 in NCSX tc.	1	2	11AUG10	11AUG10	0	12,228.80						
R1810-5333		Last field period assembled	0	2		11AUG10	0	0.00						
19 - Stellarator Core Management and Integration														
Job: 1901 - Stellarator Core Mngt&Integr-COLE														
191 - Stellarator Core Management & Oversight														
1901-08		WBS 191 FY08 LOE	249*	1	01OCT07A	29SEP08	1,522	147,785.61						
1901-09		WBS 191 FY09 LOE	247*	1	01OCT08*	28SEP09	1,274	240,493.62						
1901-10		WBS 191 FY10	498*	1	01OCT09*	30SEP11	737	510,981.21						
1901-11		WBS 191 FY12	37*	1	03OCT11*	22NOV11	737	40,305.00						
192 - Stellarator Core Integr & Global Analysis														
1902-08		WBS 192 FY08	249*	1	01OCT07A	29SEP08	1,522	155,004.85						
1902-09		WBS 192 FY09	247*	1	01OCT08*	28SEP09	1,274	236,839.50						
1902-10		WBS 192 FY10	498*	1	01OCT09*	30SEP11	774	505,262.03						
1902-11		WBS 192 FY10	37*	1	03OCT11*	22NOV11	737	40,196.49						
RISKMIT		Risk mitigation tasks	625*	1	01APR08*	30SEP10	1,024	380,109.82						



Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08						FY09						FY10						FY11						FY12						FY13					
2 - Plasma Heating, Fueling & Vac Systems																																												
21 - Fueling Systems																																												
Job: 2101 - Fueling Systems-BLANCHARD																																												
211-101		Preliminary Design	42		03MAR09*	29APR09	318	40,631.36																																				
211-105		PDR Fueling Systems	0			29APR09	318	0.00																																				
211-109		Final Design	42		30APR09	29JUN09	318	120,756.40																																				
211-113		FDR Fueling Systems	0			29JUN09	318	0.00																																				
211-117		Title III	431		30JUN09	25MAR11	906	6,764.55																																				
211-121		Procure Material and Supplies	65		01OCT09*	13JAN10	253	50,806.00																																				
211-125		Fabricate and Assemble	115		01OCT10*	22MAR11	70	97,654.80																																				
211-126		Test	5		23MAR11	29MAR11	70	21,609.20																																				
22 - Torus Vacuum Pumping Systems																																												
Job: 2201 - Vacuum Pumping Systems-BLANCHARD																																												
220-101		Preliminary Design	83		01OCT08*	05FEB09	361	126,871.80																																				
220-105		PDR VPS	1		06FEB09	06FEB09	361	0.00																																				
220-109		Final Design	80		09FEB09	01JUN09	361	147,786.60																																				
220-113		FDR VPS	1		02JUN09	02JUN09	361	0.00																																				
220-117		Procure PLC,Values,Hardware	87		01OCT09*	12FEB10	277	157,766.00																																				
220-133		Fabrication and Assemble	154		01SEP10*	15APR11	50	205,043.31																																				
220-137		Test VPS Hardware	3		05JUL11	07JUL11	1	21,609.20																																				
220-116		Title III	463		03JUN09	13APR11	893	20,285.49																																				
3 - Diagnostics																																												
31 - Magnetic Diagnostics																																												
Job: 3101 - Magnetic Diagnostics-STRATTON																																												
Modular Coil C-wound Loops																																												
3101-230		Check elect characteristics of T/C & htr tape	190		31JAN08	27OCT08	1,502	17,293.29																																				
Rogowski Coils																																												
3101-350		Winding mandrel work station	20*		31JAN08A	27FEB08	475	9,877.20																																				
3101-352		Assy & detail dgws	46		31JAN08	03APR08	431	25,761.60																																				
3101-353		Prep installation procedure	31		04APR08	16MAY08	431	6,151.20																																				
3101-354		Purchase materials	62		31JAN08	25APR08	446	21,917.22																																				
3101-370		Check elect characteristics of cables	503*		16APR08*	23APR10	1,135	9,863.45																																				
3101-351		Wind coils	13*		31MAR08*	16APR08	453	29,167.60																																				
3101-355		Temp cable trays	65		01OCT08*	12JAN09	272	12,429.20																																				
3101-356		Dsn,purchase,install rack	65		01OCT08*	12JAN09	272	24,813.24																																				
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em//em=48;em//sb=96
ea//sb=24; ee//em=112

em//em=88; ea//sb=212
ee//em=448; em//sb=48

EM//EM =40hr ;

41=38\$;

em//sb=120; em//tb=528
em//em=40; ee//em=192

em//em=40; ee//em=80

em//em=180; em//sb=168; ea//sb=180
ee//em=336;

ee//em=368; ea//sb=332;
em//em=220; em//sb=88; ee//em=32

41=118k ;

em//em=1188; em//sb=280; ee//em=352

em//em=40; ee//em=80

EM//EM =120hr ;

em//em=10;em//sm=120

41=3k; em//em=40

em//em=60;ea//sb=4

em//em=40

41=16.784k;em//em=7

em//em=10;em//sm=60

em//em=2-;em//sm=200

em//em=120;ea//sb=20

41=1.5k;em//em=8;em//tb=120;ea//sb=96

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
3101-357		Fab coil clamps & ends	12*		15MAY08*	02JUN08	421	19,428.34	em//em=16;em//sm=32;em//tb=162					
3101-358		Prep chassis & timing module	65		01OCT08*	12JAN09	272	10,031.00	41=.5k;ee//tb=120					
3101-359		Install Rogowski coils (budgeted in job 1815)	21*		02APR08*	30APR08	542	0.00						
3101-360		Title III support	130		12OCT09	23APR10	1,135	10,050.60	em//em=60					
TF and PF Co-wound Loops														
3101-425		Design Protective boxes for PF	100*		01NOV07A	01APR08	1,558	3,558.24	EA//SB =60hr ; EM//EM =110hr ;					
3101-426		Purchase SS Sheet	10		12NOV07A	18JUN08	320	226.93	EM//TB =1; 41=0.87k					
3101-452		Form Protective boxes	10		12NOV07A	23JUN08	320	2,661.38	em//sm=102					
3101-454		Weld end plates of PF protective boxes	10		09NOV07A	30JUN08	320	284.29	em//tb=18					
3101-427		Purchase Heat Shrink tubing	15		12NOV07A	19MAY08	1,495	591.56	EM//TB =6; 41=2.0k					
3101-428		Purchase add'l CoAxial cable	46		01MAY08*	07JUL08	316	2,873.47	EM//TB =2hr ; 41=4.5\$K ;					
3101-457		Rebuild connective air furnace	20		31JAN08	27FEB08	1,553	5,836.46	em//em=2;em//sm=40;41=.25k					
3101-458		FabTF,PF & solenoid co-wound loops	186		02JUL07A	15AUG08	1,462	8,479.90	em//sm=130					
3101-460		Check elect characteristics coax cables	90*		01OCT08*	16FEB09	1,431	18,195.90	em//sm=120; em//em=10					
3101-456		Title III	90		01OCT08	16FEB09	1,431	5,859.00	em//em=36					
T/C and Heater Tape Leads														
1204-140.2		Remaining Design T/C and Heater Tape Leads	44*		31JAN08A	01APR08	192	21,821.52	ea//sb=8;em//em=136					
1204-140.1		Peer Review T/C and Heater Tape Leads	12		15APR08*	30APR08	183	4,613.40	em//em=30					
1204-141		Drawings Signed T/C and Heater Tape Leads	0			30APR08	183	0.00	▼					
1204-144		Check elect characteristics T/C & heater port 12	65		01MAY08	01AUG08	183	14,583.80	EM//EM =10;em//sm=100					
1204-143		Machine twelve 2.75 CF blanks	21*		01FEB08A	29FEB08	291	4,696.56	em//sm=36					
1204-147		Field/Fab support (title III) T/C&Heater Tape	65		04AUG08	03NOV08	1,497	3,927.30	EM//EM =25					
Spacer Flux Loops & Boxes														
3101-900		Peer review	2		02OCT08	03OCT08	426	2,604.00	em//em=16					
3101-901		Purchase Copper	5		13OCT08	17OCT08	426	325.50	em//em=2					
3101-902		Purchase CoAx Cable-2000ft .059 ss	5		27OCT08	31OCT08	426	325.50	em//em=2					
3101-903		Purchase flex ss protective tube	5		27OCT08	31OCT08	426	5,714.62	em//em=2;ee//em=32					
3101-904		Design Templates	10		06OCT08	17OCT08	426	6,510.00	em//em=40					
3101-905		Machine Cu Templates	10		20OCT08	31OCT08	426	668.56	em//tb=8					
3101-908		Design protective box	10		06OCT08	17OCT08	426	3,906.00	em//em=24					
3101-909		Fab protective boxes	10		20OCT08	31OCT08	426	3,906.00	em//em=24					
3101-910		Prep dwgs of spacer loops	10		20OCT08	31OCT08	426	11,311.60	em//em=40;ea//sb=40					
3101-911		Check elec characteristics of coax cables	10		09DEC08	22DEC08	440	15,434.50	em//em=10;em//sm=100					
3101-907		Autocad dwgs of field runs	24		09DEC08	20JAN09	426	3,906.00	em//em=24					
3101-906		Engr support Title III	24		09DEC08	20JAN09	426	1,953.00	em//em=12					
Voltage Loops & Protective Boxes														
3101-800		Design Routing and Boxes	76*		31JAN08A	15MAY08	1,596	9,342.48	em//em=46;ea//sb=20					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
3101-802		Fab 3 protective Boxes (Use Existing Box)	10		16MAY08	30MAY08	1,606	3,341.64	41=1.7k; em/tb=8					
3101-806		Check elect characteristics of coax	20		16MAY08	13JUN08	1,596	9,365.40	em//em=10;em//sm=60					
3101-807		Check elect characteristics ex-vessel flux loops	193		31JAN08	30OCT08	1,499	40,337.24	em//em=40;em//sm=260					
36 - Edge and Divertor Diagnostics														
Job: 3601 - Edge Divertor Diagnostics-STRATTON														
361-001		Design Visible Camera sys	40		01OCT09*	25NOV09	309	13,234.20	EA//SB =80hr ;em//em=20					
361-015		Procure flange,window and material	65		30NOV09	10MAR10	309	4,679.50	41=04\$K ;					
361-016		fabricate and assemble Visible tv camera sys	20		11MAR10	07APR10	309	12,205.96	EMT/TB =128 ;ee//tb=16;em//em=20					
38 - Electron Beam (EB) Mapping														
Job: 3801 - Electron Beam Mapping-STRATTON														
380-010		E-beam mapping- Prelim Design	40		02MAR09*	24APR09	372	66,396.32	R///RM2 =240hr ; EM//EM =60hr ; EA//SB =98hr ; 35=03\$K ;					
380-015		E-beam mapping - PDR	1	R	27APR09	27APR09	372	0.00						
380-100		E-beam mapping-Final Design	40		28APR09*	23JUN09	372	104,685.32	R///RM2 =240hr ; EM//EM =60hr ; EA//SB =98hr ; EC//EM =100hr ;					
380-110		E-beam mapping - FDR	1	R	24JUN09	24JUN09	372	0.00						
380-115		E-beam mapping-Procure Rack,xfrmr,cable	65		01JUL10*	01OCT10	120	13,393.16	41=5\$K ; em//em=40					
380-120		E-beam mapping-Procure Ports	65		01JUL10	01OCT10	120	5,350.03	41=04\$K ;					
380-130		E-beam mapping-Procure Data Acquisition	65		01JUL10*	01OCT10	120	13,375.08	41=10\$K ;					
380-135		E-beam mapping- Assemble	65		04OCT10*	12JAN11	120	54,862.24	R///RM2 =160hr ; EM//EM =20hr ; EMT/TB =576 ; ee//em=8 ee//tb=16					
380-135M	2	E-beam mapping apparatus ready for Installation	0			12JAN11	120	0.00	▼					
39 - Diagnostics Integration														
Job: 3901 - Diagnostics sys Integration-STRATTON														
390-04		LOE Support FY08	249*		01OCT07A	29SEP08	1,522	19,176.19	R///RM2 =173hr ;					
390-05		LOE Support FY09	247*		01OCT08*	28SEP09	1,274	29,714.48	R///RM2 =173hr ;					
390-06		LOE Support FY10	246*		01OCT09*	28SEP10	1,026	30,581.21	R///RM2 =173hr ;					
390-07		LOE Support FY11	248*		01OCT10*	28SEP11	776	32,131.29	R///RM2 =173hr ;					
4 - Electrical Power Systems														
41 - AC Power														
Job: 4101 - AC Power-RAMAKRISHNAN														
411 - Auxiliary AC Power Systems														
4101-100.1		Prepare Preliminary One line diagram	173		03AUG09*	15APR10	133	1,371.84	EA//SB =06hr ; EE//EM =02hr ; EE//SM =02hr ;					
411-1-100		Ex-Test cell AC pwr-Reactiv.&new instl	210		02NOV09*	08SEP10	223	12,285.52	41=05\$K ; EA//SB =05hr ; EE//EM =08hr ; EE//SM =13hr ; EE//TB =21hr ;					
411-2-2		Grounding-Dsn	165		01MAY09*	05JAN10	205	31,659.40	EA//SB =160hr ; EE//EM =72hr ;					
411-2-4		Grounding-Procure	107		21JUN10*	18NOV10	133	13,477.94	41=10\$K ;					
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Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08						FY09						FY10						FY11						FY12						FY13																	
									FY08						FY09						FY10						FY11						FY12						FY13																	
411-2-6		Grounding-Install	43		19NOV10*	28JAN11	133	45,808.84																																																
411-2-8		Grounding-Commission	29		31JAN11*	10MAR11	133	16,324.08																																																
411-3-2		Test Cell AC Power Distr-Dsn**GPP**	90		04JAN10*	07MAY10	178	0.00																																																
411-3-4		TC AC Pwr Distr-Procure(pnls&xfrmrs)**GPP**	65		10MAY10	10AUG10	178	0.00																																																
411-3-6		Test Cell AC Power Distr-Install**GPP**	65		11AUG10	10NOV10	178	0.00																																																
411-3-8		Test Cell AC Power Distr-Commission**GPP**	45		11NOV10*	24JAN11	178	0.00																																																
412 - Experimental AC Power Systems																																																								
412-1-2		C-site Pulsed AC Power Distr-Dsn	190		02JAN09*	29SEP09	265	4,615.20																																																
412-1-4		C-site Pulsed AC Power Distr-Procure	65		30SEP09	12JAN10	318	6,682.62																																																
412-1-6		C-site Pulsed AC Power Distr-Install	40		13JAN10	09MAR10	318	11,156.64																																																
412-1-8		C-site Pulsed AC Power Distr-Commission	78		10MAR10	28JUN10	318	10,897.92																																																
43 - DC Systems																																																								
Job: 4301 - DC Systems-RAMAKRISHNAN																																																								
431 - C-Site DC Systems																																																								
431-200		Condition/spare parts inventory	20		03AUG09*	28AUG09	433	2,202.46																																																
431-210		Organize & verify documentation	20		31AUG09*	28SEP09	433	4,322.55																																																
431-215		Document status	10		29SEP09*	12OCT09	433	2,757.54																																																
431-225		Reactivate DF & PEI units	15		01JUL08*	22JUL08	634	20,332.24																																																
431-230		Duummy Load test of DF & PEI units	105		23JUL08	19DEC08	634	10,683.15																																																
431-240		Simulate each of 6 pwr loops in PSCAD	90		01OCT09*	17FEB10	234	18,026.32																																																
431-250		c-site dc sys DGS dsn documentation	259*		02FEB09*	16FEB10	235	59,717.19																																																
431-261		Redo power loop design	355		01MAY08*	30SEP09	324	49,537.71																																																
431-265		Fabricate bus components	20		18FEB10*	17MAR10	234	83,399.88																																																
431-274		Penetrations through floor	20		18FEB10	17MAR10	234	8,460.32																																																
431-275A		Power cabling & Installation FY08	85*		02JUN08*	30SEP08	486	4,407.34																																																
431-275B		Power cabling & Installation FY10	107		01OCT09*	12MAR10	237	11,361.68																																																
431-275		Power cabling & Installation	97		18MAR10*	03AUG10	234	283,754.28																																																
431-275M	2	C-site DC Systems Installed	0			03AUG10	234	0.00																																																
431-276		Maint of C-site rectifiers	997*		01OCT07A	30SEP11	774	20,234.19																																																
44 - Control and protection Systems																																																								
Job: 4401 - Control & Protection-RAMAKRISHNAN																																																								
441 - Electrical Interlocks																																																								
441-095		Design Interlock sys	310		03OCT08*	11JAN10	338	29,853.12																																																

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY						
									FY08	FY09	FY10	FY11	FY12	FY13	
441-097		Install Interlock sys	40		14JAN10*	10MAR10	336	25,602.40			EE//EM =80hr ;				
441-100		PLC Specification	160		01MAY08*	17DEC08	311	11,584.74			EE//EM =24hr ; EE//SM =56hr ;				
441-105		Prep Block diagrams	60		02JAN09*	26MAR09	307	15,444.24			EE//EM =24hr ; EE//SM =80hr ;				
441-110		PLC CWD's & Cabling	228		01OCT09*	01SEP10	116	63,718.88			EE//EM =16hr ; EE//SM =240hr ; EE//TB =320hr ;				
441-115		deliver PLC	187*		02NOV09*	05AUG10	100	100,275.00			41=75\$K ;				
441-120		Program PLC Logic	45		06AUG10	08OCT10	100	46,613.89			EE//EM =64hr ; ee/sm=240				
441-125		Program Control pages	40		11OCT10	07DEC10	100	30,369.84			EC//EM =40hr ; EE//EM =32hr ; EE//SM =120hr ;				
441-130		Pre-commissioning tests	20		08DEC10	12JAN11	100	27,150.40			41=01\$K ; EE//EM =40hr ; EE//SM =120hr ;				
441-135		Install I/O Cabling control & protection	90		27SEP10	09FEB11	100	128,771.03			41=40\$K ; EA//SB =160hr ; EE//EM =40hr ; EE//SM =80hr ; EE//TB =400hr ;				
442 - Kirk Key Interlocks															
442-1-2		Kirk Keys-Dsn	140		02MAR09*	16SEP09	276	22,040.80			EA//SB =80hr ; EE//EM =40hr ; EE//SM =40hr ;				
442-1-4		Kirk Keys-Procure	65		27MAY10*	27AUG10	106	8,918.44			41=3\$K ; EE//EM =08hr ; EE//SM =24hr ;				
442-1-6		Kirk Keys-Install	90		30AUG10*	13JAN11	106	33,632.42			41=15\$K ; EE//EM =16hr ; EE//SM =24hr ; EE//TB =80hr ;				
442-1-8		Kirk Keys-Commission	20		14JAN11	10FEB11	106	7,686.72			EE//EM =16hr ; EE//SM =20hr ; EE//TB =20hr ;				
443 - Real Time Control Systems															
443-1-2		Develop Control Algorithms-Dsn	65		01OCT09*	13JAN10	376	13,866.40			EE//EM =80hr ;				
444 - Instrument Systems															
444-2-2		DC Potential Transducers (DCPTs)-Dsn	140		02MAR09*	16SEP09	331	8,843.44			EA//SB =40hr ; EE//EM =24hr ;				
444-2-4		DC Potential Transducers (DCPTs)-Procure	65		27AUG10*	30NOV10	97	6,113.43			41=03\$K ; EA//SB =16hr ;				
444-2-6		DC Potential Transducers (DCPTs)-Install	40		01DEC10	02FEB11	97	22,211.60			EE//EM =16hr ; EE//SM =24hr ; EE//TB =160hr ; EA//SB =16hr ;				
444-2-8		DC Potential Transducers (DCPTs)-Commission	15		03FEB11	23FEB11	97	13,140.60			EE//EM =24hr ; EE//SM =24hr ; EE//TB =60hr ;				
444-3-2		DCCT Design	81		01JUN09*	23SEP09	338	7,883.12			EA//SB =32hr ; EE//EM =24hr ;				
444-3-4		Procure DCCT	88		01OCT09*	15FEB10	333	12,527.20			EA//SB =4hr ; ;41=9				
444-3-6		Install DCCT	20		16FEB10*	15MAR10	333	19,555.72			EA//SB =40hr ; ;41=.6;ee/em=24;ee/tb=120				
444-4-2		Signal Conditioning & Cabling-Dsn	160*		08OCT09*	03JUN10	136	86,163.60			EA//SB =24hr ; EE//EM =480hr ;				
444-4-4		Signal Conditioning & Cabling-Procure	65		04JUN10*	03SEP10	136	18,817.28			41=12\$K ; EE//EM =16hr ;				
444-4-6		Signal Conditioning & Cabling-Install	65		07SEP10	08DEC10	136	27,658.90			EE//EM =24hr ; EE//TB =280hr ;				
444-4-8		Signal Conditioning & Cabling-Commission	10		09DEC10	22DEC10	136	18,287.36			EE//EM =48hr ; EE//SM =40hr ; EE//TB =40hr ;				
445 - Coil Protection Systems															
445-1-2		Ground Fault Protection-Dsn	87		01JUL08*	31OCT08	352	32,648.51			EA//SB =40hr ; EE//EM =160hr ; EE//SM =16hr ;				
445-1-4		Ground Fault Protection-Procure	170		01OCT09*	10JUN10	126	16,143.28			41=10\$K ; EE//EM =16hr ;				
445-1-6		Ground Fault Protection-Install	75		22SEP10*	14JAN11	55	36,681.60			EE//EM =40hr ; EE//SM =48hr ; EE//TB =120hr ; EA//SB =08hr ; 41=8				
445-1-8		Ground Fault Protection-Commission	70		17JAN11	22APR11	55	10,774.32			EE//EM =24hr ; EE//SM =24hr ; EE//TB =32hr ;				

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY					
									FY08	FY09	FY10	FY11	FY12	FY13
445-2-105		Overload Protect-Write spec and approve	20		01JUN09*	26JUN09	337	13,472.80						
445-2-110		Overload Protect-Design	40		29JUN09	24AUG09	337	24,569.60						
445-2-115		Overload Protect-Fabr 4 chassis	65		28JUL10*	27OCT10	129	26,307.79						
445-2-120		Overload Protect-Test 4 units	10		28OCT10	10NOV10	129	10,760.00						
445-2-125		Overload Protect-Install & Rack wiring	20		11NOV10	10DEC10	129	20,609.77						
445-2-130		Overload Protect-Write & perform ISTP	15		13DEC10	10JAN11	129	10,760.00						
445-2-135		Overload Protect-Documentation	246		01OCT09*	28SEP10	1,026	10,680.48						
445-2-140		Overload Protection&cabling design,procure instl	130		28JUL10*	07FEB11	109	59,842.63						
45 - Power System Design and Integration														
Job: 4501 - Power Sys Dsn & Integr-RAMAKRISHNAN														
451 - System Design & Interfaces														
451-0-2		Develop SRD	15		07JUL08*	25JUL08	311	15,276.48						
451-3-2		Dwgs,asbuilts -Elect Dsn Integration	520		02MAR09*	31MAR11	902	190,706.70						
451-2-2		PDR Prep Power system -Dsn	40		28JUL08	22SEP08	311	29,795.52						
451-2-3	2	Power system - PDR	0	R		22SEP08	311	0.00						
451-6-2		Final design C-Site -Cabling	149		01OCT08*	08MAY09	424	27,877.60						
451-2-2.1		Final Design C-Site	268		01OCT08*	27OCT09	305	27,935.36						
451-1-2		Calculations-Dsn	149		28JUL08*	05MAR09	470	16,836.31						
451-202.2	2	Power systems C-Site - FDR	0	R		27OCT09	305	0.00						
451-4-2		Final Dsn AC auxiliaries & grounding-Dsn	45		16APR10*	18JUN10	133	11,875.20						
451-402.1		AC auxiliaries & grounding - FDR	0	R		18JUN10	133	0.00						
452 - Electrical Systems Support														
452-1-2		Diagnostics AC Power Distr-Dsn	40		01MAR10*	23APR10	163	33,634.40						
452-1-4		Diagnostics AC Power Distr-Procure	40		26APR10	21JUN10	163	2,325.40						
452-1-6		Diagnostics AC Power Distr-Install	130		22JUN10	03JAN11	163	79,033.00						
452-1-8		Diagnostics AC Power Distr-Commission	30		04JAN11	14FEB11	163	30,222.88						
452-2-2		Diagnostics sensor cabling-Dsn	43		01OCT09*	02DEC09	339	23,927.92						
452-2-4		Diagnostics sensor cabling-Procure	65		03DEC09	15MAR10	339	2,674.00						
452-2-6		Diagnostics sensor cabling-Install	43		16MAR10	13MAY10	339	20,336.48						
452-2-8		Diagnostics sensor cabling-Commission	10		14MAY10	27MAY10	339	6,307.60						
453 - System Testing (PTP's)														
453-1-2		New Procedures	90		01OCT10*	15FEB11	103	25,140.48						
453-1-3		Preop Testing-Procure test equipt	65		01OCT10*	11JAN11	128	27,400.00						
453-1-4		TF Coil Test	40		27JUN11	22AUG11	11	18,965.06						

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08 FY09 FY10 FY11 FY12 FY13					
453-1-5		PF Coil Test	40		27JUN11	22AUG11	11	18,965.06						
453-1-6		Trim Coil Coil Test	40		27JUN11	22AUG11	11	136,368.68						
453-1-8		Testing PTPs, ISTPs	40		27JUN11	22AUG11	11	159,275.76						

41=01\$K ; EA//SB =08hr ;
 EE//EM =32hr ; EE//SM =40hr ;
 EE//TB =54hr ;
 41=01\$K ; EA//SB =08hr ;
 EE//EM =32hr ; EE//SM =40hr ;
 EE//TB =54hr ;

41=10\$K ; EE//EM =240hr ;
 EE//SM =320hr ; EE//TB =376hr ;
 EA//SB =160hr ;

5 - Central I&C Systems

51 - Network and Fiber Infrastructure

Job: 5101 - Network and Fiber Infrastruct-SICHTA

Activity ID	Description	Duration	Forecast Start	Forecast Finish	Total Float	Cost to Complete
R51-10	Preliminary Design	30	01OCT09*	11NOV09	265	8,977.30
R51-11	PDR	0		11NOV09	265	0.00
R51-20	Final Design	60	12NOV09	17FEB10	265	11,919.00
R51-21	FDR	0		17FEB10	265	0.00
R51-30	Procurement	60	18JUN10*	13SEP10	180	95,270.68
R51-50	Installation	80	14SEP10	13JAN11	180	97,809.22
R51-60	Test	14	14JAN11	02FEB11	180	7,390.48

EC//EM =40hr ; ec//tb=10 ; ea//sb=20
 EC//EM =50hr ; ec//tb=30 ; ea//sb=20
 EC//EM =24hr ; ec//tb=12
 41=68\$K ;
 EC//EM =68hr ; EC//TB =50 ;
 EA//SB =240hr ; EM//TB =570hr ; ee//tb=20
 EC//EM =28hr ; EC//TB =40 ;

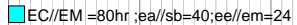
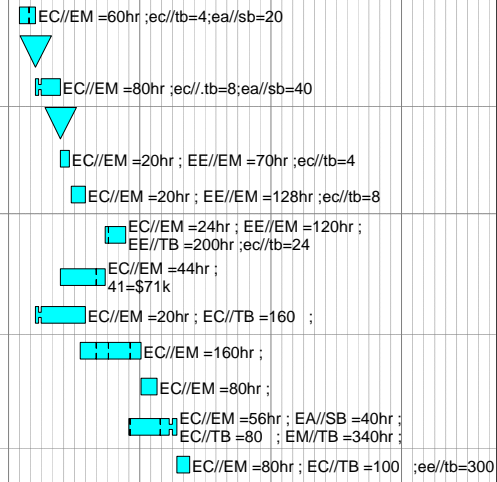
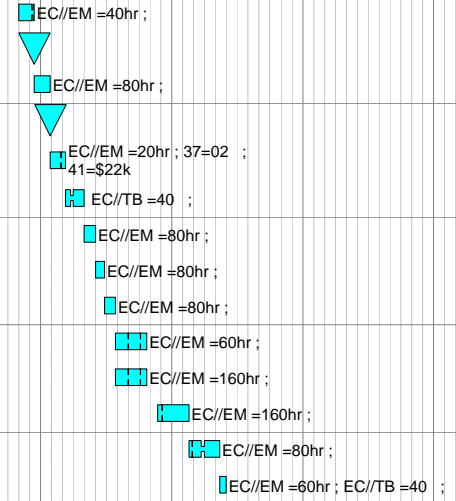
52 - Central Instrumentation & Control

Job: 5201 - I&C Systems-SICHTA

Activity ID	Description	Duration	Forecast Start	Forecast Finish	Total Float	Cost to Complete
R52-10	Preliminary Design-Infrastructure	20	03AUG09*	28AUG09	218	9,847.00
R52-11	PDR	0		28AUG09	218	0.00
R52-20	Final Design-Infrastructure	45	31AUG09	02NOV09	218	20,115.35
R52-21	FDR	0		02NOV09	218	0.00
R52-25	Preliminary Design-Subsystems	50	03NOV09*	25JAN10	256	5,754.80
R52-27	Final Design-Subsystems	50	26JAN10	05APR10	256	21,644.80
R52-30	Procurement	65	03NOV09	15FEB10	291	100,681.80
R52-40	EPICS Programming - Base	40	03NOV09*	11JAN10	218	11,509.60
R52-50	EPICS Programming - VDCT db editor	40	03NOV09*	11JAN10	406	5,754.80
R52-60	IOC Programming - MDSplus data & events	40	03NOV09*	11JAN10	406	17,264.40
R52-70	OPC - EPICS/PLC Interface	40	12JAN10	08MAR10	218	25,507.20
R52-80	Appl. Programming-T/C	148	09MAR10	05OCT10	218	35,716.41
R52-90	Programming - misc.	90	09MAR10	14JUL10	276	20,141.80
R52-100	Installation	90	30AUG10*	13JAN11	154	112,538.22
R52-110	Test	40	14JAN11	10MAR11	154	25,140.72

EC//EM =60hr ; ec//tb=20
 EC//EM =100hr ; ec//tb=80
 EC//EM =40
 EC//EM =140hr ; ec//tb=20
 EC//EM =40hr ;
 41=71\$K ;
 EC//EM =80hr ;
 EC//EM =40hr ;
 EC//EM =120hr ;
 EC//EM =160hr ;
 35=02\$K ;
 EC//EM =248hr ;
 EC//EM =140hr ;
 EC//EM =84hr ; EC//TB =164 ;
 EA//SB =320hr ; EM//TB =480hr ;
 ee//tb=40
 EC//EM =112hr ; ec//tb=104

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
53 - Data Acquisition & Facility Computing														
Job: 5301 - Data Acquisition-SICHTA														
R53-10		Preliminary Design	30		03AUG09*	14SEP09	182	5,591.20						
R53-11		PDR	0			14SEP09	182	0.00						
R53-20		Final Design	30		15SEP09	26OCT09	182	11,378.72						
R53-21		FDR	0			26OCT09	182	0.00						
R53-30		Procurement	30		27OCT09	09DEC09	182	32,291.40						
R53-40		Installation	30		10DEC09	01FEB10	182	3,006.00						
R53-50		MDSplus Installation	20		02FEB10	01MAR10	182	11,509.60						
R53-60		MDSplus Programming - Tree Design	20		02MAR10	29MAR10	182	11,509.60						
R53-70		MDSplus Programming - Shot Sync	20		30MAR10	26APR10	182	11,509.60						
R53-100		Applications Support (3 Diags)	60		27APR10	21JUL10	182	8,632.20						
R53-110		Programming - Misc.	60		27APR10	21JUL10	182	23,019.20						
R53-80		MDSplus Programming - Dispatcher	60		23AUG10*	15NOV10	160	23,641.28						
R53-90		MDSplus Programming - Acquisition	55		16NOV10	10FEB11	160	12,092.80						
R53-120		Test	14		11FEB11	02MAR11	160	12,227.60						
54 - Facility Timing & Synchronization														
Job: 5401 - Facility Timing & Synchron.-SICHTA														
R54-10		Preliminary System Design	30		02NOV09*	15DEC09	202	11,403.80						
R54-11		PDR	0			15DEC09	202	0.00						
R54-20		Final SystemDesign	40		16DEC09	19FEB10	202	17,052.80						
R54-21		FDR	0			19FEB10	302	0.00						
R54-30		Preliminary Design - Clock Dist.	20		22FEB10	19MAR10	302	15,311.10						
R54-40		Final Design - Clock Dist.	30		22MAR10	30APR10	302	25,664.84						
R54-50		Test - Clock Dist.	40		29JUN10	24AUG10	262	42,142.08						
R54-60		Procurement	90		22FEB10*	28JUN10	212	101,257.28						
R54-70		UNT - Timing & Seq Emulation (FPGA Pgm)	90		16DEC09*	30APR10	342	14,901.40						
R54-80		UNT - Device Driver Prog (EPICS/MDSplus)	120		19APR10	06OCT10	202	23,058.08						
R54-90		Central Clock (EPICS) Programming	30		07OCT10	17NOV10	202	12,092.80						
R54-100		Installation	90		30AUG10*	13JAN11	169	50,074.31						
R54-110		Test	25		14JAN11	17FEB11	169	45,340.80						
55 - Real Time Plasma & Power Supply Control Sys														
Job: 5501 - Real Time Control System-SICHTA														
R55-10		FCPC - Preliminary Design	30		01OCT09*	11NOV09	209	20,611.52						

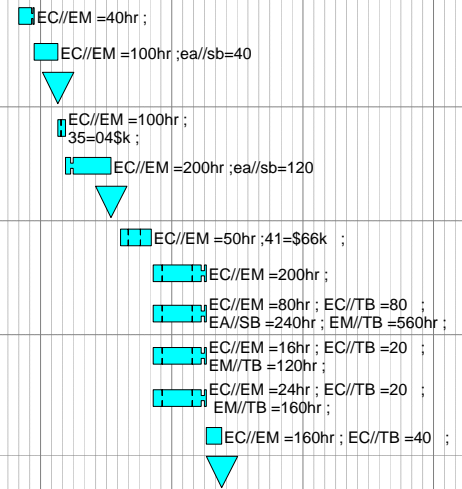


Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08						FY09						FY10						FY11						FY12						FY13					
R55-11		PDR	0			11NOV09	209	0.00																																				
R55-20		FCPC -Final Design	60		12NOV09	17FEB10	209	38,767.40													EC//EM =180hr ;ea//sb=20;ee//em=60																							
R55-21		FDR	0			17FEB10	209	0.00																																				
R55-30		FCPC - Procurement	65		19APR10*	20JUL10	167	178,272.60													EC//EM =20hr ; 41=\$126;ee//em=40																							
R55-40		Host Programming	115		21JUL10	10JAN11	172	17,751.25													EC//EM =120hr ;																							
R55-42		ACQ Programming	115		21JUL10	10JAN11	167	11,834.16													EC//EM =80hr ;																							
R55-45		PCS programming	115		21JUL10	10JAN11	167	17,751.25													EC//EM =120hr ;																							
R55-48		PSRTC Programming	115		21JUL10	10JAN11	167	34,432.57													EC//EM =140hr ;ee//em=160																							
R55-50		FCPC PLC Intgration-EPICS Prog	115		21JUL10	10JAN11	167	5,917.08													EC//EM =40hr																							
R55-51		FCPC Data Acq & Ctl Installation	115		21JUL10	10JAN11	167	34,910.26													EC//EM =40hr;ec//tb=60;em//tb=120 ee//em=40;ee//tb=80																							
R55-60		FCPC -Test	30		11JAN11	21FEB11	167	34,645.00													EC//EM =100hr ; EC//TB =20 ; ee//em=80;ee//tb=40																							
R55-70		GISRTC - Preliminary Design	30		01OCT09*	11NOV09	219	10,696.80													EC//EM =40hr ;ea//sb=40																							
R55-71		PDR	0			11NOV09	219	0.00																																				
R55-80		GISRTC -Final Design	60		12NOV09	17FEB10	219	11,103.20													EC//EM =60hr ;ea//sb=20																							
R55-81		FDR	0			17FEB10	219	0.00																																				
R55-90		GISRTC - Procurement	60		18MAY10*	11AUG10	156	21,130.30													EC//EM =40hr ;41=11.5 ;																							
R55-100		GISRTC Programming	115		12AUG10	01FEB11	156	11,915.30													EC//EM =80hr ;																							
R55-110		GISRTC - Installation	115		12AUG10	01FEB11	156	33,107.79													EC//EM =40hr ; EC//TB =60 ;ea//sb=24 em//tb=100;ee//em=40;ee//tb=40																							
R55-120		GISRTC -Test	25		02FEB11	08MAR11	156	19,004.40													EC//EM =80hr ;ec//tb=20 ee//em=20;ee//tb=20																							

56 - Central Safety and Interlock Systems

Job: 5601 - Central Safety & Interlock Sys-SICHTA

R56-10		Requirements, Codes&Standards	30		03AUG09*	14SEP09	191	5,591.20
R56-20		Preliminary Design	45		15SEP09	16NOV09	191	19,182.49
R56-21		PDR	0			16NOV09	191	0.00
R56-30		PLC Training	15		17NOV09	09DEC09	191	19,363.00
R56-35		Final Design	80		10DEC09	12APR10	191	43,600.00
R56-36		FDR	0			12APR10	191	0.00
R56-40		Procurement	60		13MAY10*	06AUG10	169	95,435.50
R56-50		Safety PLC Programming	100		09AUG10	06JAN11	169	29,677.96
R56-60		Installation (4 subsystems)	100		09AUG10	06JAN11	169	98,334.55
R56-63		Installation for DARM's access control (2)	100		09AUG10	06JAN11	169	14,569.94
R56-66		Installation add'l test cell doors	100		09AUG10	06JAN11	169	19,305.59
R56-70		Test	30		07JAN11	17FEB11	169	27,343.60
R56-70M	2	Compl Central Safety&Interlock Sys Pre-ops Tests	0			17FEB11	169	0.00



Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08										
									FY08	FY09	FY10	FY11	FY12	FY13				
58 - Central I&C management and Integration																		
Job: 5801 - Central I&C Integr& Oversight-SICHTA																		
R58-20		WBS58 -FY08 Management & Integration LOE	250*		01OCT07A	30SEP08	1,521	14,454.84	ec//em=160									
R58-30		WBS58 -FY09 Management & Integration LOE	249		01OCT08*	30SEP09	1,272	16,773.60	ec//em=120									
R58-40		WBS58 -FY10 Management & Integration LOE	248		01OCT09*	30SEP10	1,024	17,264.40	ec//em=120									
R58-50		WBS58 -FY10 Management & Integration LOE	248		01OCT10*	28SEP11	776	18,139.20	ec//em=120									
6 - Facility Systems																		
61 - Water Systems																		
Job: 6101 - Water Systems-DUDEK																		
613 - Vacuum Pumping System																		
6101-100		Design Vac Pmp water sys	45		03MAY10*	06JUL10	100	39,785.90	EM//EM =60hr ; EA//SB =120hr ;									
6101-105		Procure Hardware and materials Vac Pmp water sys	90		07JUL10	10NOV10	100	30,955.14	41=22.97\$K ;									
6101-110		Fabricate and Install Vac Pmp water sys	40		11NOV10*	17JAN11	100	36,490.65	EM//EM =50hr ; EM//TB =265hr ;em//sb=30									
6101-115		Test Vac Pmp water sys	22		18JAN11	16FEB11	100	5,022.72	EM//EM =08hr ; EM//TB =40hr ;									
62 - Cryogenic Systems																		
Job: 6201 - Cryogenic Syst-RAFTOPOLOUS																		
621 - LN2 Supply & LN2 coil cooling supply																		
62122-300		Conceptual Design	142		03JUN08*	23DEC08	132	100,139.85	EA//EM =352hr ; EA//EM =40hr ; EA//SB =136hr ; ee//em=80									
62122-310		CDR	0			23DEC08	132	0.00										
62122-320		Preliminary Design	210		02JAN09	27OCT09	132	128,207.06	EA//EM =264hr ; EA//EM =40hr ; EA//SB =416hr ; ee//em=120									
62122-330		PDR	0			27OCT09	132	0.00										
62122-340		Final Design	88		28OCT09*	12MAR10	132	118,794.80	EA//EM =248hr ; EA//SB =400hr ; ee//em=120									
62122-350		FDR	0			12MAR10	132	0.00										
62122-360		Resolve FDR Chits	10		15MAR10	26MAR10	132	3,086.40	EA//EM =16hr ;									
62122-370		Procurements	130		29MAR10	29SEP10	132	251,115.34	41=187.815\$K ;									
62122-380		Fabrication & Installation LN2 & LN2 coil supply	145	2	01OCT10*	03MAY11	131	200,621.40	EM//TB =2220hr ;									
623 - GN2 Cryostat Cooling System																		
623-099		GN2 Cryostat Cooling Sys Conceptual design	122*		01JUL08*	23DEC08	138	33,490.02	ea//em=184									
623-100		GN2 Cryostat Cooling Sys CDR	0			23DEC08	138	0.00	em//em=160;ea//sb=160;em//tb=160;ee//em=160									
623-101		GN2 Cryostat Cooling Sys-Preliminary Design	130		02JAN09	06JUL09	138	160,208.52	ea//EM =464hr ; EA//SB =380hr ; ee//em=160									
623-102		GN2 Cryostat Cooling Sys-Fab & test prototype	130		02JAN09	06JUL09	138	103,753.16	41=4.66;em//tb=640;em//sm=320									
623-121		GN2 Cryostat Cooling Sys-Cooldown& thermal	40		08MAY09	06JUL09	138	44,983.20	EA//EM =240hr ;									
623-141		GN2 Cryostat Cooling Sys PDR	0			06JUL09	138	0.00										
623-161		GN2 Cryostat Cooling Sys-Final Design	125		07JUL09	12JAN10	138	50,677.94	ea//em=72hr ; EA//SB =176hr ; ea//em=80									
623-181		GN2 Cryostat Cooling Sys- FDR	0			12FEB10	115	0.00										
623-201		GN2 Cryostat Cooling Sys-Procure Hardware	130		01JUN10*	03DEC10	103	137,230.15	41=101.785\$K ;									
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Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY					
									FY08	FY09	FY10	FY11	FY12	FY13
623-221		GN2 Cryostat Cooling Sys-Assemble & Install	130		06DEC10	14JUN11	103	187,969.60						
623-262		GN2 Cryostat Cooling Supply-Title III	323		15FEB10	26MAY11	115	47,473.23						
63 - Utility Systems														
Job: 6301 - Utility Systems-DUDEK														
6301-001		Vac Vent and Air sys- Prelim Dsn	20		01OCT10*	28OCT10	134	19,536.28						
6301-005		Vac Vent and Air sys- PDR	1	R	29OCT10*	29OCT10	134	1,407.92						
6301-009		Vac Vent and Air sys- Final dsn	10		01NOV10*	12NOV10	134	12,496.68						
6301-010		Vac Vent and Air sys- FDR	1	R	15NOV10*	15NOV10	134	1,407.92						
6301-013		Vac Vent and Air sys- Procure hardware and compo	60		16NOV10	17FEB11	134	36,947.80						
6301-017		Vac Vent and Air sys- Fabricate and Install	40		18FEB11*	14APR11	134	32,618.94						
6301-020		Vac Vent and Air sys-Test	10		15APR11*	28APR11	134	5,022.72						
64 - PFC/VV Heating & Cooling (Bakeout)														
Job: 6401 - PFC/VV Htng/Cooling(bakeout)- KALISH														
6401-000		Bakeout Sys- Requirements Definition	40		01OCT09*	25NOV09	222	15,432.00						
6401-001		Bakeout Sys-Preliminary Design	40		30NOV09*	03FEB10	222	51,862.80						
6401-002		Bakeout Sys-PDR	1	R	04FEB10*	04FEB10	222	1,543.20						
6401-004		Bakeout Sys- EA Analysis	30		05FEB10	18MAR10	222	30,864.00						
6401-005		Bakeout Sys-Final Design	40		19MAR10*	13MAY10	222	56,804.80						
6401-009		Bakeout Sys-FDR	1	R	14MAY10*	14MAY10	222	1,543.20						
6401-010		Bakeout Sys-Procure Piping & Equipt	65		01OCT10*	11JAN11	126	265,224.86						
6401-013		Assemble & Install	65		12JAN11*	12APR11	126	179,836.30						
6401-017		Bakeout Sys- ACC Review	10		13APR11*	26APR11	126	11,722.00						
6401-020		Bakeout Sys-PTP Testing	10		27APR11*	10MAY11	126	18,951.60						
7 - Test Cell Preparation and Machine Assy														
73 - Platform Design & Fabrication														
Job: 7301 - Platform Design & Fab-PERRY														
711A.040		Platform nut plates	30	1	19AUG08*	30SEP08	421	408.49						
712.020		Platform Parts	30	1	19AUG08*	30SEP08	421	32,337.96						
712.030		Miscs Hardware/Material	40	1	05AUG08*	30SEP08	421	29,808.00						
7301-100		Survey & layout locations for platform posts	10	1	17SEP09	30SEP09	172	25,404.00						
7301-102		Machine platform trial assembly & fitup	30	1	01OCT09*	11NOV09	172	124,714.08						
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EM/TB =2080;

EM/EM =240hr ;

EM/EM =52hr ; EA/SB =80hr ;

EM/EM =08hr ;

EM/EM =12hr ; EA/SB =80hr ;

EM/EM =08hr ;

EM/EM =20hr ; 41=24.398\$K ;

EM/EM =20hr ; EM/TB =322hr ;

EM/EM =08hr ; EM/TB =40hr ;

EM/EM =80hr ;

EM/EM =192hr ; EA/SB =120hr ;

EM/EM =08hr ;

EA/EM =160hr ;

EM/EM =192hr ; EA/SB =120hr ;

EM/EM =08hr ;

41=165.185\$K ; ea/em=192

EM/TB =1990hr ;

EM/EM =40hr ; EM/TB =40hr ;

EM/EM =40hr ; EM/TB =120hr ;

EM/TB =36hr ; 41=00\$K ;

EM/EM =32hr ; 41=03\$K ;

EM/TB =300hr ;

41=24\$K ;

EM/EM =40hr ; EM/SM =40hr ;

EM/TB =160hr ;

EM/EM =48hr ; EM/SM =240hr ;

EM/TB =960hr ;

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
74 - Machine Assembly Planning and Oversight														
Job: 7401 - TC Prep & Mach Assy Planning-PERRY														
GPP Projects Required for NCSX (non-MIE cost)														
GPP-01		CS Crane	0	2		30MAY08*	475	0.00	▼					
GPP-02		CS Interior Wall Replacement	0	2		31JUL08*	845	0.00	▼					
GPP-03		CS/RF Bldg HVAC Split	0	2		30JAN09*	724	0.00	▼					
GPP-04		Complete CS High Bay Electrical Work	0	2		06JUL11	93	0.00	▼					
GPP-05		CS Building Control Room HVAC	0	2		26FEB10*	446	0.00	▼					
GPP-06		CS Test Cell N Exhaust Vent System	0	2		26FEB10*	446	0.00	▼					
GPP-07		CS Control Room Lighting & Electrical	0	2		30JUN10*	358	0.00	▼					
714.020		LOE Prior to assy starting	583*	1	01OCT07A	25JAN10	1,221	314,288.64	EM//EM =.5 fte ; EE//SM =.1 fte					
714.030		LOE Start of assy through thru completion	463*	1	25JAN10*	22NOV11	737	1,214,358.72	Perry 1.0 fte Langella 1.0 fte					
714.031		Additional supervision for 2nd shift	311	2	16SEP10*	24NOV11	743	457,137.54	2nd shift supervision 1.0 fte EM 1.0 fte SM					
8203FY11.1		Title III Design support	270*		26OCT10*	22NOV11	737	337,666.05	EA//EM =173hr ; EA//EM =670hr ; EA//SB =345hr ; EM//EM =67hr ; (total .25 fte designer and .25 ftye engr)					
75 - Test Cell and Basement Assembly Operations														
Job: 7501 - Construction Support Crew-PERRY														
General Assy Support														
7501-06		Construction Support Crew for 2nd shift	311	2	16SEP10*	24NOV11	743	436,868.84	Tool Crib Control em//tb=(.75 fte) Crane Operator & support em//tb= (1.0 fte) Forklift Operator & support em//tb= (1.0 fte)					
7501-05		Construction Support Crew during machine assy	463*	1	25JAN10*	22NOV11	61	888,356.70	Tool Crib Control em//tb=(.75 fte) Crane Operator & support em//tb= (1.0 fte) Forklift Operator & support em//tb= (1.0 fte)					
Job: 7503 - Machine Assembly (station 6)-PERRY														
1.0 - Component Preparation														
S-6-1.00A		Assemble assembly structure	34		01FEB10*	18MAR10	45	46,632.80	EM//EM =00hr ; 41=04\$sk ; EM//SM =00hr ; EM//TB =480hr ;					
7501-10.4M	2	Complete Base Support Structure Assembly	0	1		18MAR10	45	0.00	▼					
S-6-1.00B		Assemble structure between assy sleds & FPA	57		18DEC09	18MAR10	45	46,632.80	EM//EM =00hr ; 41=04\$sk ; EM//SM =00hr ; EM//TB =480hr ;					
S-6-1.01		Assemble three field period support stands (see	54		01DEC09	24FEB10	45	46,632.80	EM//EM =00hr ; 41=04\$sk ; EM//SM =00hr ; EM//TB =480hr ;					
S-6-1.02		Assemble three spool piece support stands (see F	10		12JUL10	23JUL10	45	31,534.20	EM//EM =00hr ; 41=03\$sk ; EM//SM =00hr ; EM//TB =320hr ;					
S-6-1.03		Assemble machine base structure (see Fig 2a)	32		17DEC09	10FEB10	45	31,534.20	EM//EM =00hr ; 41=03\$sk ; EM//SM =00hr ; EM//TB =320hr ;					
S-6-1.04		Assemble three FPA installation carts (see Fig 1	10		11FEB10	24FEB10	45	31,534.20	EM//EM =00hr ; 41=03\$sk ; EM//SM =00hr ; EM//TB =320hr ;					
S-6-1.05		Assemble spool support stand platforms	20		25JUN10	23JUL10	45	63,068.40	EM//EM =00hr ; 41=06\$sk ; EM//SM =00hr ; EM//TB =640hr ;					
S-6-1.06		Fabricate and Assemble 3 laser support polls	29		16DEC09	04FEB10	45	31,534.20	EM//EM =00hr ; 41=03\$sk ; EM//TB =320hr ;					
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Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
2.0 - Test Cell Metrology set-up/deflection test														
S-6-2.01		Install test cell metrology site monuments	56	NO	03DEC09	02MAR10	45	134,673.20						
S-6-2.02		Install the laser supports	6	NO	05FEB10	12FEB10	45	18,519.42						
S-6-2.03		Laser tracker support pole bases installed	9	NO	15FEB10	25FEB10	45	27,845.98						
S-6-2.04		Install laser support pole on each Period base.	3		26FEB10	02MAR10	45	9,593.96						
S-6-2.05		Establish global coordinate system	6	NO	03MAR10	10MAR10	45	6,086.40						
S-6-2.06		Qualify laser accuracy when laser is installed	6	NO	11MAR10	18MAR10	45	6,086.40						
3.0 - Pre-installation set-up and test														
S-6-3.01		Install the machine base support structure	10		11FEB10	24FEB10	45	45,295.80						
S-6-3.02		Install each of three FPA carts and drive system	15		25FEB10	17MAR10	45	61,927.20						
S-6-3.04		Position the lower PF 5 and 6 coils	1		18MAR10	18MAR10	45	2,752.32						
4.0 - FPA-1 Installation and Assembly Test														
S-6-4.01		Obtain a set of Period 1 alignment fiducial posi	0		19MAR10	18MAR10	45	0.00						
S-6-4.01A		Exercise assembly structure with FPA-1	40	NO	19MAR10	13MAY10	45	95,622.40						
S-6-4.02		Move FPA 1 support fixture to the assembly posit	1		14MAY10	14MAY10	45	2,064.24						
S-6-4.03		Using laser at Period 1 establish a global coor	2	NO	17MAY10	18MAY10	45	2,028.80						
S-6-4.04		Position Period 1 on the period support stand	0		19MAY10	18MAY10	45	0.00						
7503-080		FPA-1 Installed on sleds	0	1		18MAY10	45	0.00						
S-6-4.05		Use the corner positioning device to position Pe	1		19MAY10	19MAY10	45	4,093.04						
S-6-4.06		AirLoc Wedgemount levelerup to take the load.	1		20MAY10	20MAY10	45	4,093.04						
S-6-4.07		Return FPA support fixt with Period 1 to extrac	1		21MAY10	21MAY10	45	4,093.04						
S-6-4.09		Install personnel lift platform on right side Pe	0		24MAY10	21MAY10	45	0.00						
S-6-4.09A		Fabricate platform	3		19MAY10	21MAY10	45	19,389.76						
S-6-4.09B		Install platform	1		24MAY10	24MAY10	45	2,752.32						
S-6-4.10		Measure VV &MC end flanges right side of Period	10		25MAY10	08JUN10	45	20,288.00						
S-6-4.11		Measure the Period 1 left side VV &Type-C flange	0		09JUN10	08JUN10	45	0.00						
S-6-4.11A		Install platform	1		09JUN10	09JUN10	45	2,752.32						
S-6-4.11B		Measure end flange	10		10JUN10	23JUN10	45	20,288.00						
S-6-4.12		Machine Period 1 C side spool flange only	20	VEN	24JUN10	22JUL10	45	28,077.00						

EM//EM =00hr ; EM//SM =00hr ;
EM//TB =700hr ; 41=43\$K ;
EA//EM =88hr ;
EM//EM =00hr ; 41=02\$K ;
EM//TB =192hr ;
EM//EM =00hr ; 41=02\$K ;
EM//TB =288hr ;
EM//EM =00hr ; 41=01\$K ;
EM//TB =96hr ;
EM//EM =00hr ; EA//EM =00hr ;
ZMET =48 ;
EM//EM =00hr ; EA//EM =00hr ;
ZMET =48 ;

EM//EM =00hr ; 41=03\$K ;
EM//SM =00hr ; EM//TB =480hr ;
EM//EM =00hr ; EM//SM =00hr ;
EM//TB =720hr ;
EM//EM =00hr ; EM//SM =00hr ;
EM//TB =32hr ;

EM//EM =00hr ;
EM//EM =00hr ; EM//SM =00hr ;
ZMET =320 ; EM//TB =640hr ;
EM//EM =00hr ; EM//SM =00hr ;
EM//TB =24hr ;
EM//EM =00hr ; EA//EM =00hr ;
ZMET =16 ;
EM//EM =00hr ; EM//SM =00hr ;
EM//TB =00hr ;

EM//EM =00hr ; EA//EM =00hr ;
EM//SM =00hr ; ZMET =16 ;
EM//TB =24hr ;
EM//EM =00hr ; EA//EM =00hr ;
EM//SM =00hr ; ZMET =16 ;
EM//TB =24hr ;
EM//EM =00hr ; EA//EM =00hr ;
EM//SM =00hr ; ZMET =16 ;
EM//TB =24hr ;

EM//EM =00hr ; EA//SB =00hr ;
EM//EM =00hr ; 41=05\$K ;
EM//SM =00hr ; EM//TB =96hr ;
EA//SB =36hr ;
EM//EM =00hr ; EM//SM =00hr ;
EM//TB =32hr ;

EM//EM =00hr ; EA//EM =00hr ;
ZMET =160 ;
EM//EM =00hr ;
EM//EM =00hr ; EM//SM =00hr ;
EM//TB =32hr ;
EM//EM =00hr ; EA//EM =00hr ;
ZMET =160 ;
EM//EM =00hr ; 41=21\$K ;

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12	FY13	
5.0 - Spool piece installation test															
S-6-5.01		Return FPA support fixt Period 1 to extracted po	1		23JUL10	23JUL10	45	3,766.72				EM//EM =00hr ; EM//SM =00hr ; ZMET =08 ; EM//TB =32hr ;			
S-6-5.02		Local platform supports spool support stand Peri	0		26JUL10	23JUL10	45	0.00				EM//EM =00hr ;			
S-6-5.02A		Fabricate platform	3		26JUL10	28JUL10	45	23,400.76				EM//EM =00hr ; 41=08\$K ; EM//SM =00hr ; EM//TB =96hr ; EA/SB =36hr ;			
S-6-5.02B		Install platform	1		29JUL10	29JUL10	45	2,752.32				EM//EM =00hr ; EM//SM =00hr ; EM//TB =32hr ;			
S-6-5.03		Reposition metrology lasers	2		30JUL10	02AUG10	45	2,028.80				EM//EM =00hr ; EA//EM =00hr ; ZMET =16 ;			
S-6-5.04		Install the Period 1 spool support stand	3		03AUG10	05AUG10	45	10,930.96				EM//EM =00hr ; 41=02\$K ; EM//SM =00hr ; EM//TB =96hr ;			
S-6-5.05		Operational check bringing spool piece/Period 1	3		06AUG10	10AUG10	45	10,930.96				EM//EM =00hr ; 41=02\$K ; EM//SM =00hr ; EM//TB =96hr ;			
S-6-5.06		Spool flanges can continue to be machined	0		11AUG10	10AUG10	45	0.00				EM//EM =00hr ;			
S-6-5.07		Loosen Period 1 VV supports and pull VV outboard	2		11AUG10	12AUG10	1,056	8,178.64				EM//EM =00hr ; 41=02\$K ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-5.08		Remove the spool, spool support stand and platfo	2		13AUG10	16AUG10	1,056	5,504.64				EM//EM =00hr ; EM//SM =00hr ; EM//TB =64hr ;			
6.0 - Spool piece flange machining															
S-6-6.00A		Obtain contract for machining of spool pieces	20	NO	14JUL10	10AUG10	45	6,700.40				EM//EM =40hr ;			
S-6-6.00B		Transport spool piece 1 to vendor	5	NO	11AUG10	17AUG10	45	4,011.00				EM//EM =00hr ; 41=03\$K ;			
S-6-6.00C		Machine spool piece 1	15	NO	18AUG10	08SEP10	45	42,784.00				EM//EM =00hr ; 41=32\$K ;			
S-6-6.00D		Transport spool piece 1 back to PPPL	5	NO	09SEP10	15SEP10	75	4,011.00				EM//EM =00hr ; 41=03\$K ;			
S-6-6.00E		Transport spool piece 2 to vendor	5	NO	11AUG10	17AUG10	60	4,011.00				EM//EM =00hr ; 41=03\$K ;			
S-6-6.00F		Machine spool piece 2	15	NO	09SEP10	29SEP10	45	42,784.00				EM//EM =00hr ; 41=32\$K ;			
S-6-6.00G		Transport spool piece 2 back to PPPL	5	NO	30SEP10	06OCT10	60	4,090.20				EM//EM =00hr ; 41=03\$K ;			
S-6-6.00H		Transport spool piece 3 to vendor	5	NO	11AUG10	17AUG10	75	4,011.00				EM//EM =00hr ; 41=03\$K ;			
S-6-6.00I		Machine spool piece 3	15	NO	30SEP10	20OCT10	45	43,769.60				EM//EM =00hr ; 41=32\$K ;			
S-6-6.00J		Transport spool piece 3 back to PPPL	5	NO	21OCT10	27OCT10	45	4,110.00				EM//EM =00hr ; 41=03\$K ;			
7.0 - FPA-2 Installation															
S-6-7.01		Obtain set Period 2 alignment fiducial positions	1		18JUN10	18JUN10	44	0.00				EM//EM =00hr ;			
S-6-7.02		Move FPA 2 support fixture to the assembly posit	1		21JUN10	21JUN10	44	2,064.24				EM//EM =00hr ; EM//SM =00hr ; EM//TB =24hr ;			
S-6-7.03		Place laser suprt pole Period 2 estab global coo	2	NO	22JUN10	23JUN10	44	2,028.80				EM//EM =00hr ; EA//EM =00hr ; ZMET =16 ;			
S-6-7.04		Position Period 2 on the period support stand	0		24JUN10	23JUN10	44	0.00				EM//EM =00hr ; EM//SM =00hr ; EM//TB =00hr ;			
7503-110		FPA-2 Installed on sleds	0	1		23JUN10	44	0.00				EM//EM =00hr ; EM//SM =00hr ; EM//TB =24hr ;			
S-6-7.05		Period 2, bring three primary fiducials into al	1		24JUN10	24JUN10	44	4,093.04				EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =16 ; EM//TB =24hr ;			
S-6-7.06		AirLoc Wedgemount leveler to take the load.	1		25JUN10	25JUN10	44	4,093.04				EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =16 ; EM//TB =24hr ;			
S-6-7.07		Return FPA support fixt Period 2 to extracted po	1		28JUN10	28JUN10	44	4,093.04				EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =16 ; EM//TB =24hr ;			
S-6-7.09		Install a personnel lift platform between Period	0		29JUN10	28JUN10	44	0.00				EM//EM =00hr ;			
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Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08												FY09												FY10												FY11												FY12												FY13																							
S-6-7.09A		Fabricate platform	3		24JUN10	28JUN10	44	23,400.76																																					EM//EM =00hr ; 41=08\$k ; EM//SM =00hr ; EM//TB =96hr ; EA//SB =36hr ;																																															
S-6-7.09B		Install platform	1		29JUN10	29JUN10	44	2,752.32																																					EM//EM =00hr ; EM//SM =00hr ; EM//TB =32hr ;																																															
S-6-7.10		Measure type C MC left end flanges of Period 2.	5		30JUN10	07JUL10	44	10,144.00																																					EM//EM =00hr ; EA//EM =00hr ; ZMET =80 ;																																															
S-6-7.11		Pull VV outboard to imaximum extent	2		08JUL10	09JUL10	44	8,178.64																																					EM//EM =00hr ; 41=02\$sk ; EM//SM =00hr ; EM//TB =64hr ;																																															
S-6-7.12		Return FPA 2 support fixture Period 2 to extract	1		12JUL10	12JUL10	44	5,426.32																																					EM//EM =00hr ; 41=02\$sk ; EM//SM =00hr ; EM//TB =32hr ;																																															
8.0 - FPA-3 Installation																																																																																												
S-6-8.01		Obtain set Period 3 alignment fiducial positions	1		11AUG10	11AUG10	0	0.00																																					EM//EM =00hr ;																																															
S-6-8.02		Move FPA 3 support fixture to assembly position	1		12AUG10	12AUG10	0	2,064.24																																					EM//EM =00hr ; EM//SM =00hr ; EM//TB =24hr ;																																															
S-6-8.03		Place laser support pole Period 3 estabglobal co	2	NO	13AUG10	16AUG10	0	2,028.80																																					EM//EM =00hr ; EA//EM =00hr ; ZMET =16 ;																																															
S-6-8.04		Position Period 3 on period support stand	0		17AUG10	16AUG10	0	0.00																																					EM//EM =00hr ; EM//SM =00hr ;																																															
7503-150	2	FPA-3 Installed on sleds	0	1		16AUG10	0	0.00																																					EM//EM =00hr ; EM//TB =00hr ;																																															
S-6-8.05		position Period 3, bring 3 primary fiducials int	1		17AUG10	17AUG10	0	4,093.04																																					EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =16 ; EM//TB =24hr ;																																															
S-6-8.06		AirLoc Wedgemount leveler up to take load	1		18AUG10	18AUG10	0	4,093.04																																					EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =16 ; EM//TB =24hr ;																																															
S-6-8.07		Return the FPA support fixt Period 3 to extracte	1		19AUG10	19AUG10	0	4,093.04																																					EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =16 ; EM//TB =24hr ;																																															
S-6-8.08		Install a personnel lift platform between Period	0		20AUG10	19AUG10	0	0.00																																					EM//EM =00hr ;																																															
S-6-8.08A		Fabricate platform	3		17AUG10	19AUG10	0	23,400.76																																					EM//EM =00hr ; 41=08\$sk ; EM//SM =00hr ; EM//TB =96hr ; EA//SB =36hr ;																																															
S-6-8.08B		Install platform	1		20AUG10	20AUG10	0	2,752.32																																					EM//EM =00hr ; EM//SM =00hr ; EM//TB =32hr ;																																															
S-6-8.09		Measure type MC right end flanges of Period 3.	5		23AUG10	27AUG10	0	10,144.00																																					EM//EM =00hr ; EA//EM =00hr ; ZMET =80 ;																																															
S-6-8.1		Pull VV outboard to maximum extent	2		30AUG10	31AUG10	0	8,178.64																																					EM//EM =00hr ; 41=02\$sk ; EM//SM =00hr ; EM//TB =64hr ;																																															
S-6-8.11		Return FPA 3 support fixt Period 3 toextracted	1		01SEP10	01SEP10	0	5,426.32																																					EM//EM =00hr ; 41=02\$sk ; EM//SM =00hr ; EM//TB =32hr ;																																															
9.0 - Measure Type-C MC Flanges																																																																																												
S-6-9.01		Mount laser head support bracket and laser head	2		02SEP10	03SEP10	0	4,401.64																																					EM//EM =00hr ; EM//TB =04hr ; EA//EM =00hr ; ZMET =32 ;																																															
S-6-9.02		Measure type C MC left end flanges of Period 3.	1		07SEP10	07SEP10	0	2,200.82																																					EM//EM =00hr ; EM//TB =02hr ; EA//EM =00hr ; ZMET =16 ;																																															
S-6-9.03		Measure Period 2 right side VV and Type-C end fl	2		08SEP10	09SEP10	0	4,401.64																																					EM//EM =00hr ; EM//TB =04hr ; EA//EM =00hr ; ZMET =32 ;																																															
10.0 - Type-C Shim Sizing/Prep																																																																																												
S-6-10.01		Define the C/C shim thickness.	0		08SEP10	07SEP10	3	0.00																																					EM//EM =00hr ; EA//EM =00hr ;																																															
S-6-10.02		Compress alumina coated shims and sort	2		08SEP10	09SEP10	3	2,752.32																																					EM//EM =00hr ; EM//SM =00hr ; EM//TB =32hr ;																																															
11.0 - Type-C Inboard Shim Installation Check																																																																																												
S-6-11.01A		Design	20	NO	30APR10*	27MAY10	67	12,355.00																																					EM//EM =00hr ; EM//SM =00hr ; EA//SB =100hr ;																																															
S-6-11.01B		Fabricate	5		02SEP10	09SEP10	0	20,250.80																																					EM//EM =00hr ; 41=10\$sk ; EM//TB =80hr ;																																															

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year											
									FY08	FY09	FY10	FY11	FY12	FY13						
S-6-12.06		retract TF coil outward FP1 as far as possible	1	2	29NOV10	29NOV10	0	8,523.68					EM//EM =00hr ; 41=02\$K ;							
S-6-12.07A		On Period 2 install TF coils at each end	2	2	30NOV10	01DEC10	0	11,567.36					EM//SM =00hr ; EM//TB =64hr ;							
S-6-12.07B		Align FP2 TF to fiducials on the MC locking into	2	2	02DEC10	03DEC10	0	8,524.80					EM//EM =00hr ; EM//SM =00hr ;							
S-6-12.07C		Position FP2 TF coils so they are properly align	2	2	06DEC10	07DEC10	0	15,069.12					EM//TB =128hr ; EM//EM =00hr ; EA//EM =00hr ;							
S-6-12.07D		Secure FP2 TF coils in place to inspect and meas	2	2	08DEC10	09DEC10	0	14,308.48					ZMET =64 ; EM//SM =00hr ; EM//TB =96hr ;							
S-6-12.07E		Measure interfacing Period 2 TF surfaces and the	1	2	10DEC10	10DEC10	0	7,914.88					EM//EM =00hr ; EA//EM =00hr ;							
S-6-12.07F		Retract FP2 TF coil outward as far as possible	1	2	13DEC10	13DEC10	0	8,523.68					EM//SM =00hr ; ZMET =16 ;							
S-6-12.08A		On Period 3 install TF coils at each end	2	2	14DEC10	15DEC10	0	11,567.36					EM//TB =64hr ; EM//EM =00hr ; 41=02\$K ;							
S-6-12.08B		Align FP3 TF to fiducials on the MC locking into	2	2	16DEC10	17DEC10	0	8,524.80					EM//SM =00hr ; EM//TB =64hr ;							
S-6-12.08C		Position FP3 TF coils so they are properly align	2	2	20DEC10	21DEC10	0	15,069.12					EM//EM =00hr ; EM//SM =00hr ; EM//TB =128hr ;							
S-6-12.08D		Secure FP3 TF coils in place to inspect and meas	2	2	22DEC10	23DEC10	0	14,308.48					EM//EM =00hr ; EA//EM =00hr ;							
S-6-12.08E		Measure interfacing Period 3 TF surfaces and the	1	2	03JAN11	03JAN11	0	7,914.88					EM//SM =00hr ; EM//TB =64hr ;							
S-6-12.08F		Retract FP3 TF coil outward as far as possible	1	2	04JAN11	04JAN11	0	8,523.68					ZMET =64 ; EM//EM =00hr ; 41=02\$K ;							
13.0 - Install PF-4 Lwr & Solenoid suprt column																				
S-6-13.01		Place PF-4 lower in temp position	1	2	05JAN11	05JAN11	0	685.00					EM//EM =00hr ; 41=01\$K ;							
S-6-13.02		Temporarily place lower TF centering disks	1	2	05JAN11	05JAN11	0	722.96					EM//EM =00hr ; EM//SM =00hr ;							
14.0 - Move all Periods to installed position																				
S-6-14.01		install the local platforms between each Period	1	2	06JAN11	06JAN11	0	8,675.52					EM//EM =00hr ; EM//SM =00hr ;							
S-6-14.02		Install spool support stand and spool on platfo	1	2	07JAN11	07JAN11	0	2,891.84					EM//TB =96hr ; EM//EM =00hr ; EM//SM =00hr ;							
S-6-14.03		Install a camera for viewing the VV / spool inte	1	2	10JAN11	10JAN11	0	1,445.92					EM//TB =32hr ; EM//EM =00hr ; EM//SM =00hr ;							
S-6-14.04		verify each Period in proper orientation metr ch	1	2	10JAN11	10JAN11	0	4,262.40					EM//TB =16hr ; EM//EM =00hr ; EA//EM =00hr ;							
S-6-14.05		bring all three FPA & three spacers (spool piece	2	2	11JAN11	12JAN11	0	8,675.52					ZMET =32 ; EM//EM =00hr ; EM//SM =00hr ;							
7503-412M	2	Move FPA's & spacers together/chk fitup complete	0	2		12JAN11	0	0.00					EM//TB =96hr ;							
													***** LEVEL II MILESTONE DATE OCTOBER 2010 *****							
S-6-14.06A		Design platform	20		19AUG10*	16SEP10	69	0.00					EM//EM =00hr ;							
S-6-14.06B		Fabricate platform	6		01OCT10*	08OCT10	59	39,271.04					EM//EM =00hr ; 41=16\$K ;							
S-6-14.06		Install local platforms access C-C interface	1	2	12JAN11	12JAN11	0	10,045.52					EM//SM =00hr ; EM//TB =192hr ;							
S-6-14.07		re-install C-C shims Bring Periods final positio	2	2	13JAN11	14JAN11	0	8,675.52					EM//EM =00hr ; 41=01\$K ;							
S-6-14.08		"wiggle" test Tighten bolt and recheck.	4	2	17JAN11	20JAN11	0	34,702.08					EM//SM =00hr ; EM//TB =96hr ;							
S-6-14.09		Make shim adjustments if needed.	2	2	21JAN11	24JAN11	0	9,590.40					EM//EM =00hr ; EM//SM =00hr ;							
													EM//TB =384hr ; EM//EM =00hr ; EA//EM =00hr ;							
													ZMET =72 ;							

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	FY13
S-6-14.09A		Back office input on new shim sizes	1	2	25JAN11	25JAN11	0	0.00						
S-6-14.09B		Loosen hardware and install new shims	4	2	26JAN11	31JAN11	0	26,026.56						
S-6-14.10A		Design platform	20	NO	16AUG10*	13SEP10	72	9,884.00						
S-6-14.10B		Fabricate platform	10		18OCT10*	29OCT10	48	42,618.40						
S-6-14.1		Install local support platform in the solenoid	2	2	13JAN11	14JAN11	3	11,567.36						
S-6-14.11		Install remaining shims, studs supernuts torque	4	2	17JAN11	20JAN11	3	34,702.08						
S-6-14.12		"wiggle" test (rotate on bolt) Tighten bolt a	4	2	21JAN11	26JAN11	3	34,702.08						
S-6-14.13		Install bushing. Replace nut and tighten back t	11	2	01FEB11	15FEB11	0	174,938.72						
S-6-14.14A		Torquing C-C	1	2	16FEB11	16FEB11	0	8,675.52						
S-6-14.14B		Sealing C-C	2	2	17FEB11	18FEB11	0	5,783.68						
S-6-14.14C		Retorque C-C all super-nuts after 30 days	3	2	17MAR11	21MAR11	50	26,026.56						
S-6-14.15		Measure the tooling balls on all Periods.	2	2	21FEB11	22FEB11	0	6,393.60						
S-6-14.16		Determ level sequence lowering machine on final	1	2	23FEB11	23FEB11	0	0.00						
15.0 - Move VV Period to final position and Weld														
S-6-15.01		Secure VV into its final installed position.	3	2	24FEB11	28FEB11	0	39,499.44						
S-6-15.02A		Design and fabricate clips	20	NO	26OCT10*	22NOV10	62	12,565.80						
S-6-15.02B		Develop weld procedure and qualify it.	20	NO	29NOV10*	03JAN11	40	9,969.60						
S-6-15.02		properly position each spool pieces	6	NO	01MAR11	08MAR11	0	17,351.04						
S-6-15.03		Remove each spool support stand.	2	2	09MAR11	10MAR11	0	8,675.52						
S-6-15.04A		Move FPAs to final position	1	2	11MAR11	11MAR11	0	10,046.08						
S-6-15.04B		Weld vacuum vessel spool pieces (1st shift)	30	NO	14MAR11	22APR11	0	178,084.80						
S-6-15.04M	2	Vacuum Vessel Welding complete (3 FP's)	0	NO		22APR11	0	0.00						
S-6-15.04C		Leak check / inspect spool piece welds (2nd shi	15	NO	05APR11	25APR11	24	65,066.40						
S-6-15.04D		Weld port 4s (1st shift)	24	NO	25APR11	26MAY11	0	116,441.28						
S-6-15.04E		Leak check / inspect port 4s welds (2nd shift)	8	NO	18MAY11	27MAY11	0	17,351.04						
S-6-15.05		Remove all temporary vertical VV support rods	1	2	31MAY11	31MAY11	0	5,783.68						
S-6-15.06		Place boots on all three spool ports	1	2	01JUN11	01JUN11	77	1,445.92						
S-6-15.07		Secure VV horizontal supports at each NB port.	1	2	01JUN11	01JUN11	22	1,445.92						
16.0 - Move TF Coils to final position														
S-6-16.01		secure TF centering disk to the MC.	1	2	01JUN11	01JUN11	0	2,891.84						
S-6-16.02		Align TF centering disks and secure to MC she	1	2	02JUN11	02JUN11	0	3,577.12						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08												FY09												FY10												FY11												FY12												FY13											
S-6-16.03		Pull / push TF coils are into wedged position.	4	2	03JUN11	08JUN11	0	26,026.56																																																																								
S-6-16.04		Align fiducials on the MCs measure talignment of	1	2	09JUN11	09JUN11	0	4,262.40																																																																								
17.0 - Install Lower PF Colis																																																																																
S-6-17.01		Remove the PF access plates from the carts	1	2	10JUN11	10JUN11	0	1,445.92																																																																								
S-6-17.02		Raise PF5,6 and install off lower PF support str	1	2	13JUN11	13JUN11	0	5,783.68																																																																								
18.0 - Transfer Weight to Final Machine Supports																																																																																
S-6-18.01		Install final machine structures at each of "C-C	2	NO	14JUN11	15JUN11	0	8,675.52																																																																								
S-6-18.02		Install local machine support fittings	2	NO	16JUN11	17JUN11	0	8,675.52																																																																								
S-6-18.03		Obtain Wedgemount leveling sequence	0		20JUN11	17JUN11	0	0.00																																																																								
S-6-18.04		Transfer machine weight fromtemp supports to fin	3	NO	20JUN11	22JUN11	0	13,013.28																																																																								
S-6-18.05		Retract & remove the FPA support stands and cart	3	NO	23JUN11	27JUN11	0	13,013.28																																																																								
S-6-18.06		Install inboard machine supports at the "A-A" in	3	NO	28JUN11	30JUN11	0	13,013.28																																																																								
19.0 - Vacuum Pump System																																																																																
S-6-19.01		Install the NB transition duct on Period 1.	1	2	01JUL11	01JUL11	1	5,783.68																																																																								
S-6-19.02		Install vacuum system off Period 1 NB transition	1	2	05JUL11	05JUL11	2	5,783.68																																																																								
S-6-19.03		Install pumping rack in Period 1 area near pump	3	2	01JUN11*	03JUN11	19	8,599.60																																																																								
S-6-19.04		Perform A/C pwr connections&pump sys RGA / IG ho	2	2	06JUN11	07JUN11	19	7,153.68																																																																								
S-6-19.05		Install gas injection sys on upper port 12 on Pe	1	2	06JUL11	06JUL11	2	722.96																																																																								
S-6-19.06		Install E-Beam mapping and diagnostic equipment	5	2	01JUL11	08JUL11	0	44,972.40																																																																								
7503-250	2	Begin Vac Vsl Pumpdown	0	2		08JUL11	0	0.00																																																																								
S-6-19.07		Pumpdown vacuum vessel & perform full leakcheck	8	2	11JUL11	20JUL11	0	71,853.00																																																																								
20.0 - MC/VVSA Annulus insulation fill																																																																																
S-6-20.01		Recheck VV penetrations to assure seals in place	10	2	01JUL11	15JUL11	46	57,836.80																																																																								
S-6-20.02A		Design & install feed tubes f/aerogel distributi	10	2	06JUL11	19JUL11	43	28,918.40																																																																								
S-6-20.0B		Procure agitators assure compl fill of aerogel	1	2	20JUL11	20JUL11	43	16,440.00																																																																								
S-6-20.02		Fill MC / VVSA annulus with pourable aerogel ins	2	NO	21JUL11	22JUL11	43	5,783.68																																																																								
21.0 - Instl Remaining Trim Coils & Mag struct																																																																																
S-6-21.01		Install 4 horiz trim coils (2 top 2 bottom) eac	1	2	21JUL11	21JUL11	0	8,675.52																																																																								
S-6-21.02		Temporary secure (slanted) trim coils	1	2	22JUL11	22JUL11	0	4,337.76																																																																								
S-6-21.03		Install magnet systems support structure off TF	1	2	25JUL11	25JUL11	0	8,675.52																																																																								
S-6-21.04		Attach the trim coils to the magnet system struc	1	2	26JUL11	26JUL11	0	4,337.76																																																																								
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Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08												FY09												FY10												FY11												FY12												FY13											
S-6-21.05		Attach channel structure behind TF coil located	1	2	27JUL11	27JUL11	0	4,337.76																																																																								
S-6-21.06		Perform metrology measurements new trim coils i	3	NO	28JUL11	01AUG11	0	6,393.60																																																																								
22.0 - Install solenoid & Remaining PF Coils																																																																																
S-6-22.01		Locate laser tracker system on floor	2	2	02AUG11	03AUG11	0	6,393.60																																																																								
S-6-22.03		Install solenoid central support column	1	2	04AUG11	04AUG11	0	2,891.84																																																																								
S-6-22.04		Lower solenoid assy and secure	2	2	05AUG11	08AUG11	0	11,567.36																																																																								
S-6-22.05		Install PF-4 lower	1	2	09AUG11	09AUG11	0	7,153.68																																																																								
S-6-22.06		Install PF-5 upper.	1	2	10AUG11	10AUG11	0	7,153.68																																																																								
S-6-22.07		Install PF-6 upper.	1	2	11AUG11	11AUG11	0	7,153.68																																																																								
S-6-22.08		Align PF-5 lower and secure in place.	1	2	12AUG11	12AUG11	0	7,153.68																																																																								
S-6-22.09		Align PF-6 lower and secure in place.	1	2	15AUG11	15AUG11	0	7,153.68																																																																								
S-6-22.1		Install laser tracker to align PF-4 upper	1	2	16AUG11	16AUG11	0	2,131.20																																																																								
S-6-22.11		Install PF-4 upper; align and secure in place.	1	2	17AUG11	17AUG11	0	7,153.68																																																																								
S-6-22.11M	2	ALL PF Coils Installed	0	2		17AUG11	0	0.00																																																																								
23.0 - Inst/Route Mag Leads to Transition Box																																																																																
S-6-23.00C		Install transition boxes	3	2	18AUG11	22AUG11	0	23,058.80																																																																								
S-6-23.01		Support and route all TF leads.	3	2	23AUG11	25AUG11	0	39,171.78																																																																								
S-6-23.02		Support and route all MC leads.	3	2	26AUG11	30AUG11	0	39,171.78																																																																								
S-6-23.03		Support and route all PF leads to the designated	2	2	31AUG11	01SEP11	0	20,039.09																																																																								
S-6-23.04		Support and route all trim coil leads.	8	2	02SEP11	14SEP11	0	102,034.08																																																																								
S-6-23.5		Install and route all magnet leads from transiti	5	2	23AUG11	29AUG11	11	59,735.28																																																																								
24.0 - Install LN2 and I&C Services																																																																																
S-6-24.01		Run Rogowski lead cabled at spool piece port to	2	2	15SEP11	16SEP11	0	5,707.76																																																																								
S-6-24.05		grounding wires to single ground point in cryost	5	2	19SEP11	23SEP11	0	69,763.12																																																																								
S-6-24.02B		Run I&C from PF to transition box	5	2	26SEP11	30SEP11	10	48,015.20																																																																								
S-6-24.03B		Run I&C from TF to transition box	5	2	03OCT11	07OCT11	10	52,159.60																																																																								
S-6-24.04B		Run I&C from MC to transition box	5	2	10OCT11	14OCT11	10	52,159.60																																																																								
S-6-24.02A		Run LN2 lines to PF	2	2	17OCT11	18OCT11	10	17,340.12																																																																								

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY					
									FY08	FY09	FY10	FY11	FY12	FY13
S-6-24.03A		Run LN2 lines to TF	2	2	19OCT11	20OCT11	10	17,340.12						
S-6-24.04A		Run LN2 lines to MC	2	2	21OCT11	24OCT11	10	17,340.12						
25.0 thru 35.0 - Cryostat,NB duct & I&C Routing														
S-6-25		Install NB transition duct Period 2 and 3	2	2	23AUG11	24AUG11	57	11,567.36						
S-6-26		Install thermal insulation on all Port 4s	1	2	25JUL11	25JUL11	43	8,675.52						
7503-330	2	Begin Cryostat Installation	0	2		23SEP11	0	0.00						
S-6-29.1		Install cryostat base, vapor barrier, port boots	7	NO	26SEP11	04OCT11	0	37,977.14						
S-6-29.2		Install power, LN2 and I&C feedthrus	4	NO	05OCT11	10OCT11	0	20,178.00						
S-6-29.3		Install cryostat cooling system and instrumentat	3	NO	11OCT11	13OCT11	0	47,952.00						
S-6-29.4		Install cryostat midplane and port boots	7	NO	14OCT11	24OCT11	0	40,356.00						
S-6-29.5		Install cryostat upper section and port boots	11	NO	25OCT11	08NOV11	0	60,534.00						
S-6-31		Final LN2 connections to supplies.(incl in 6201)	5	2	25OCT11	31OCT11	10	0.00						
S-6-32.1		Design I&C tray system in NCTC	20	NO	25JUL11*	19AUG11	50	8,307.84						
S-6-35		Install all remaining test cell platforms	6	2	28JUN11	06JUL11	92	38,812.08						
S-6-32.2		Install I&C tray system in NCTC	4	2	01NOV11	04NOV11	0	87,482.72						
S-6-32.5		Install cable extensions from cryostat to J-boxe	6	2	07NOV11	14NOV11	0	153,445.68						
S-6-29.6		Install cryostat circulation duct	4	NO	09NOV11	14NOV11	0	20,178.00						
S-6-33		Connect 150 C bakeout system	5	2	08NOV11	14NOV11	0	15,760.00						
S-6-36		Begin Startup Testing	0			14NOV11	0	0.00						
76 - Tooling Design & Fabrication														
Job: 7601 - Tooling Design & Fabrication-PERRY														
713.020		Lab Fab/Assy/Installation	427	1	25JAN10*	03OCT11	773	32,352.69						
713.030		Tooling,assy fixtures,misc equipt	426	1	25JAN10*	30SEP11	61	81,381.97						
713.040		General procurements	426	1	25JAN10*	30SEP11	61	61,036.48						
713.050		Welding tools, materials & equipt	426	1	25JAN10*	30SEP11	61	108,509.30						
713.060		Torque wrenches and multipliers	426	1	25JAN10*	30SEP11	61	115,408.76						
8 - Project Oversight and Support														
81 - Project Management and Control														
Job: 8101 - Project Management &Control-ANDERSON														
810.900		Project Management Office PPPL FY08 (LOE)	250*		01OCT07A	30SEP08	1,521	538,668.19						

ornlem=8 ; 41=02\$K ;
ornldm=4 ; EM/TB =128hr ;
ornlem=8 ; 41=02\$K ;
ornldm=4 ; EM/TB =128hr ;

EM/EM =00hr ; EM/SM =00hr ;
EM/TB =128hr ;
EM/EM =00hr ; EM/SM =00hr ;
EM/TB =96hr ;

BEGIN CRYOSTAT INSTALLATION
DOE LEVEL 2 MILESTONE

EM/EM =00hr ; EM/SM =00hr ;
EM/TB =320hr ; EA/EM =40hr ;
EM/EM =00hr ; EM/SM =00hr ;
EM/TB =160hr ; EA/EM =20hr ;
EM/EM =00hr ; EM/TB =128hr ;
EM/SM =00hr ; EA/EM =160hr ;

EM/EM =00hr ; EM/SM =00hr ;
EM/TB =320hr ; EA/EM =40hr ;
EM/EM =00hr ; EM/SM =00hr ;
EM/TB =480hr ; EA/EM =60hr ;

EM/EM =00hr ; EA/SB =64hr ;
EM/EM =00hr ; 41=03\$K ;
EM/SM =00hr ; EM/TB =384hr ;
EM/EM =00hr ; 41=30\$K ;
EA/SB =64hr ; EM/TB =368hr ;

EM/EM =00hr ; 41=84\$K ;
EA/SB =66hr ; EM/TB =264hr ;
EM/EM =00hr ; EM/SM =00hr ;
EM/TB =160hr ; EA/EM =20hr ;
EM/EM =00hr ; EM/SM =00hr ;
EM/TB =160hr ;

EM/EM =00hr ;

EM/EM =80hr ; EM/SM =42hr ;
EM/TB =140hr ;
41=60\$K ;
41=45\$K ;
41=80\$K ;
41=80\$K ; EM/EM =40hr ;

Hutch =.80 fte rate ; Strykowski =.95fte rate
Pam =1.0 fte rate ; 35=34\$K ;
41=10\$K ;
deputy p&c=.75fte rate

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08 FY09 FY10 FY11 FY12 FY13						
810.9005		Project Management Office PPPL FY08 (PM.LOE)	170*		01FEB08*	30SEP08	1,521	336,100.00	Don Rej =.75 fte						
810.901		Project Management Office PPPL FY09 (SA LOE)	249*		01OCT08*	30SEP09	974	1,251,262.61	Hutch =.80 fte rate ; Strykowski =.95 fte rate Pam =1.0 fte rate ; 35=34\$K ; 41=10\$K ; Don Rej =1.0 fte deputy p&c=.6fte rate						
810.909		Project Management Office PPPL FY10 (LOE)	248		01OCT09	30SEP10	974	1,177,516.10	Hutch =.50 fte ; Strykowski=.95 fte 35=34\$K ; Pam =1.0 fte 41=06\$K ; Don Rej =1.0 fte deputy p&c=.65fte rate						
810.909A		Project Management Office PPPL FY11 (LOE)	249		01OCT10*	29SEP11	775	740,665.49	Hutch =.25fte ; Strykowski=.70 fte 35=17\$K ; Pam =.5 fte 41=06\$K ; Don Rej =.9 fte						
810.910		Project Management Office PPPL FY12 (LOE)	50*		03OCT11*	13DEC11	724	118,710.92	Hutch =.25 fte ; Strykowski=.5 fte 35=03.5\$K ; Pam =.5 fte 41=01\$K ; proj mgr=.5 fte rate,						
Job: 8102 - NCSX MIE Management ORNL-LYON															
810.105XX		Project Management Office ORNL FY08 (LOE)	170*		31JAN08*	29SEP08	1,522	217,087.70	harris=.4 fte; hillis=.1 fte; morris=.25 fte akers=.15 fte travel =15						
810.105Z		Project Management Office ORNL FY09 (LOE)	247*		01OCT08*	28SEP09	1,274	196,542.90	harris=.25 fte; hillis=.1 fte; morris=.1 fte akers=.1 fte travel =\$15k						
810.106X		Project Management Office ORNL FY10 (LOE)	246*		01OCT09*	28SEP10	1,026	142,258.20	harris=.2 fte; hillis=0 fte; morris=.1 fte akers=.1 fte travel =\$15k						
810.106XA		Project Management Office ORNL FY11 (LOE)	248*		01OCT10*	28SEP11	776	82,274.70	harris=.1fte; hillis=0 fte; morris=..05 fte akers=.05 fte travel =\$15k						
810.106Z		Project Management Office ORNL FY12 (LOE)	50*		03OCT11*	13DEC11	724	17,275.37	harris=.1fte; hillis=0 fte; morris=..05 fte akers=.05 fte travel =\$3k						
82 - Project Engineering															
Job: 8202 - Engr Mgmt & Sys Eng Sprt-HEITZENROED															
8205DC		document control & admin support	968*		31JAN08*	13DEC11	724	125,534.40	EE//AM =649hr ; B//CB						
8205FY08.2		Engr mgt & systems engr FY08	171*		31JAN08*	30SEP08	1,521	535,606.79	EA//EM =954hr ; EA//EM =826hr ; EA//EM =190hr ; EM//EM =1,018hr ; EE//EM =190hr ;						
8205FY09		Engr mgt & systems engr FY09	249*		01OCT08*	30SEP09	1,272	845,982.20	EA//EM =1,295hr ; EA//EM =1,036hr ; EA//EM =518hr ; EM//EM =1,381hr ; EE//EM =518hr ;						
8205FY10		Engr mgt & systems engr FY10	248*		01OCT09*	30SEP10	1,024	866,120.24	EA//EM =1,295hr ; EA//EM =1,036hr ; EA//EM =259hr ; EM//EM =1,295hr ; EE//EM =863hr ;						
8205FY11		Engr mgt & systems engr FY11	250*		01OCT10*	30SEP11	774	790,953.29	EA//EM =1,122hr ; EA//EM =863hr ; EA//EM =173hr ; EM//EM =1,295hr ; EE//EM =690hr ;						
8205FY12		Engr mgt & systems engr FY12	50*		03OCT11*	13DEC11	724	92,722.71	EA//EM =133hr ; EA//EM =100hr ; EA//EM =00hr ; EM//EM =165hr ; EE//EM =50hr ;						
Job: 8203 - Design Integration-BROWN															
8203FY08-1		Service routing within cryostat & TC	46*		29FEB08*	02MAY08	1,625	14,168.00	EA//EM =80hr ;						
8203FY08-2		Facility models update&integration	43		02APR08*	02JUN08	1,605	51,006.40	EA//EM =80hr ; EA//DM =320hr ;						
8203FY08-3		Cryostat design rvw & integration update	41		05JUN08*	01AUG08	1,562	39,671.20	EA//EM =120hr ; EA//DM =160hr ;						
8203FY08-4		General integration activities	170*		01FEB08*	30SEP08	1,521	120,382.90	EA//EM =390hr ; EA//SB =290hr ; EA//DM =160hr ;						
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Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY08 FY09 FY10 FY11 FY12 FY13					
									Gantt Chart					
8203FY09.2		FY09	249*		01OCT08*	30SEP09	1,272	767,277.69	EA/SB =1,320hr ; EA/EM =1,320hr ; EM/EM =660hr ; EA/EM =822hr ; EA/DM =822hr ;					
8203FY10.2		FY10	248*		01OCT09*	30SEP10	1,024	789,689.43	EA/SB =1,320hr ; EA/EM =1,320hr ; EM/EM =660hr ; EA/EM =822hr ; EA/DM =822hr ;					
8203FY11.2		FY11	250*		01OCT10*	30SEP11	774	656,821.56	EA/SB =1,320hr ; EA/EM =1,160hr ; EM/EM =660hr ; EA/EM =663hr ; EA/DM =00hr ;					
8203FY12.2		FY12	50*		03OCT11*	13DEC11	724	141,515.10	EA/SB =252hr ; EA/EM =232hr ; EM/EM =133hr ; EA/EM =133hr ; EA/DM =00hr ;					
Job: 8204 - Systems Analysis-BROOKS														
8204-FY08X		Systems Analysis, studies & tech assurance FY08	250*		01OCT07A	30SEP08	1,521	364,985.39	Brooks= 1370 hrs ZHANG = 639 hrs Fan = 1004 hrs					
8204-FY09		Systems Analysis, studies & tech assurance FY09	249*		01OCT08*	30SEP09	1,272	412,158.57	Brooks= 1095 hrs ZHANG = 548 hrs Fan = 556 hrs					
8204-FY10		Systems Analysis, studies & tech assurance FY10	248*		01OCT09*	30SEP10	1,024	155,091.60	Brooks= 540 hrs ZHANG = 174 hrs Fan = 90 hrs					
8204-FY11		Systems Analysis, studies & tech assurance FY11	300*		01OCT10*	13DEC11	724	101,829.75	Brooks=.1 fte ZHANG=.1 fte Fan=.05 fte					
Job: 8205 - Dimensional Control Coordin-ELLIS														
METFY08R		Support FPA Station 2	444*		31JAN08	03NOV09	0	88,198.68	ellis =240 hr ea/em=240hrs					
METDCP-3	3	Dimensional control plans for station 3	40		05FEB08	31MAR08	163	26,210.80	EA/EM =80hr ;					
STAT3 PREP		Station 3 preparations	30		24SEP08	04NOV08	84	14,856.67	ellis =80					
METFY08RX		Support FPA Station 3	339*		05NOV08	24MAR10	0	90,857.10	ellis =240 hr ea/em=240hrs					
METDCP-5	3	Dimensional control plans for station 5	40		11JUN08	06AUG08	195	21,252.00	EA/EM =120hr ;					
STAT5PREP		Station 5 preparations	30		13APR09	22MAY09	84	22,491.60	ellis =120					
METFY09		Support FPA Station 5	325		02MAR09	17JUN10	44	91,380.18	ellis =240;ea/em=240					
STAT6PREP		Station 6 preparations	130		29MAY09	02DEC09	45	45,417.43	ellis =240					
METDCP-6	3	Dimensional control plans for station 6	80		10AUG09	02DEC09	45	45,688.83	EA/EM =240hr ;					
METFY10		Support Final Machine Assy station 6	508		27OCT09*	09NOV11	746	95,643.02	ellis =240;ea/em=240					
Job: 8215 Plant Design														
FY07 Rebaseline Exercise														
8210-07		Update plant model	19		31JAN08	26FEB08	1,673	15,225.60	EM/EM =40hr ; EA/SB =80hr ;					
8210-08		Plant Design	826*		01OCT07A	31JAN11	945	185,670.65	EM/EM =.05 fte; EA/SB =.2 fte EM/SM =.03 fte					
85 - Integrated Systems Testing														
Job: 8501 - Integrated Systems Testing-GENTILE														
Startup Documentation														
Y														
8501-101		SAD NCSX Safety Assessment Document (SAD)	45		03NOV08*	15JAN09	454	48,131.20	EM/EM =160hr ; EM/SM =160hr ;					
8501-129		NCSX-XX, Administrative Control of Procedures	30		24NOV08	15JAN09	440	24,065.60	EM/EM =80hr ; EM/SM =80hr ;					

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete from 2/1/08	FY					
									FY08	FY09	FY10	FY11	FY12	FY13
730.9000	1	CD-4	0	1		31JUL13*	0	0.00						
									***** COMPLETE CD-4 DOE LEVEL 1 MILESTONE *****					
Allocations														
99 - PPPL Allocations														
Job: 8998 - Allocations-STRYKOWSKY														
99.08		PPPL Allocations FY08	LOE	249*	01OCT07A	29SEP08	1,522	288,467.40	54=262 ;					
99.081		PPPL Allocations FY09	LOE	247*	01OCT08*	28SEP09	1,274	460,429.00	54=271 ;					
99.09		PPPL Allocations FY10	LOE	248*	01OCT09*	30SEP10	1,024	488,909.72	54=281 ;					
99.09A		PPPL Allocations FY11	LOE	250*	01OCT10*	30SEP11	774	513,607.80	54=281 ;					
99.10		PPPL Allocations FY12		50*	03OCT11*	13DEC11	724	178,194.50	54=91 ;					
Contingency														
Contingency-Project														
Contingency														
C08		Contingency FY08		170*	31JAN08*	29SEP08	1,522	0.00	54=262 ;					
C09		Contingency FY09		247*	01OCT08*	28SEP09	1,274	2,730,000.00	54=271 ;					
C10		Contingency FY10		246*	01OCT09*	28SEP10	1,026	3,044,000.00	54=281 ;					
C11		Contingency FY11		248*	01OCT10*	28SEP11	776	10,126,000.00	54=281 ;					
C12		Contingency FY11		252*	03OCT11*	28SEP12	522	6,510,000.00	54=91 ;					