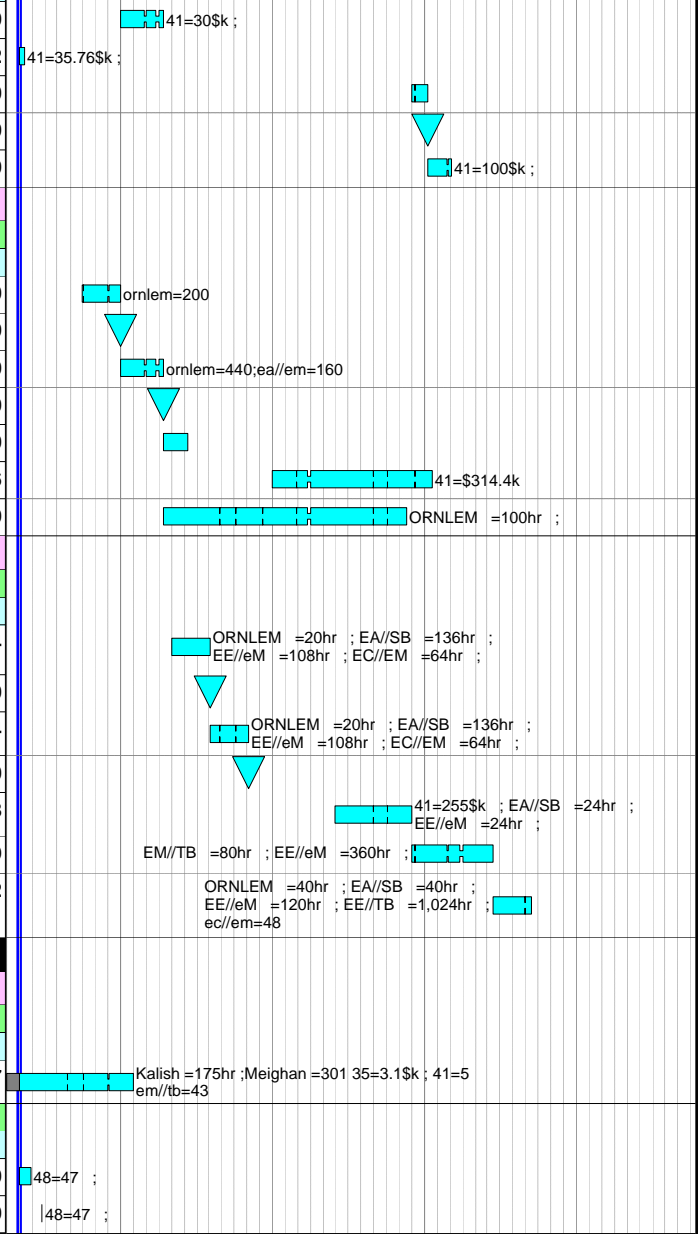
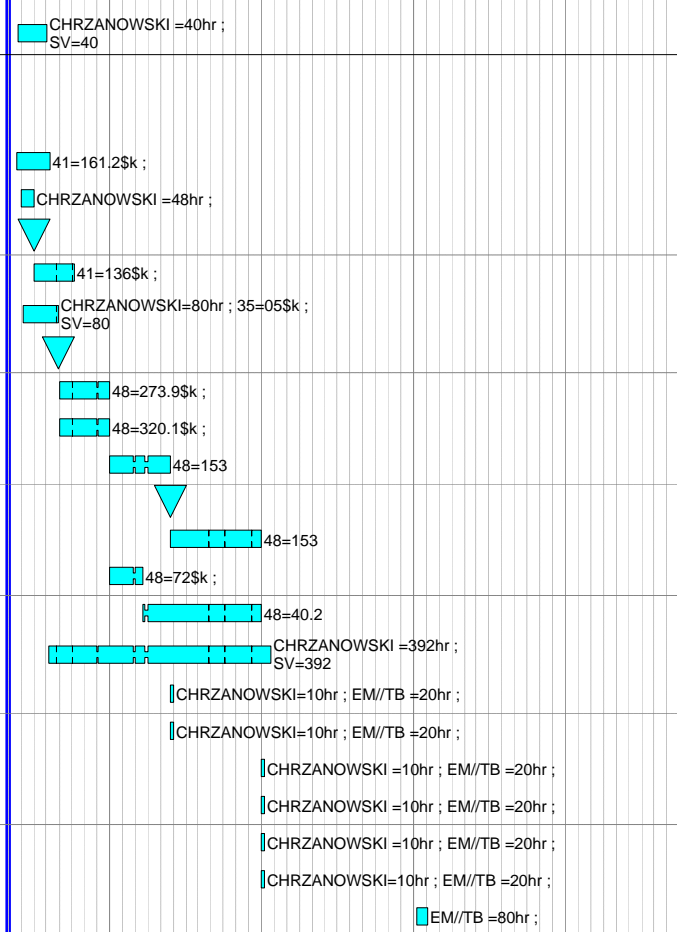


Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
cc 9450 - NCSX Fabrication (MIE)													
12 - Vacuum Vessel Systems													
Job: 1204 - VV Sys Procurements (nonVVSA)-DUDEK													
Thermal Insulation													
123-052		Fabricate&Deliver boot sheet metal parts r405209	65		01OCT08*	12JAN09	178	39,180.00					
122-051		Deliver Port Thermal Insulation pe7793	7*		01FEB08*	11FEB08	1,684	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					

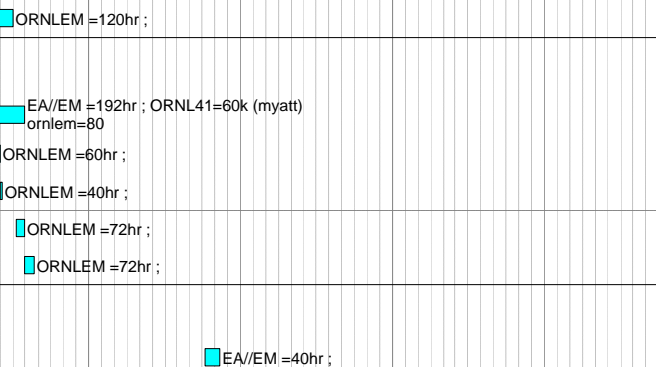
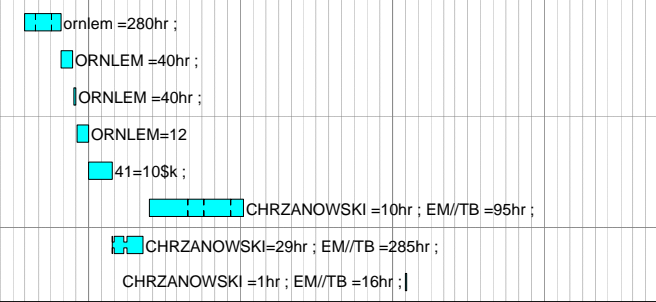
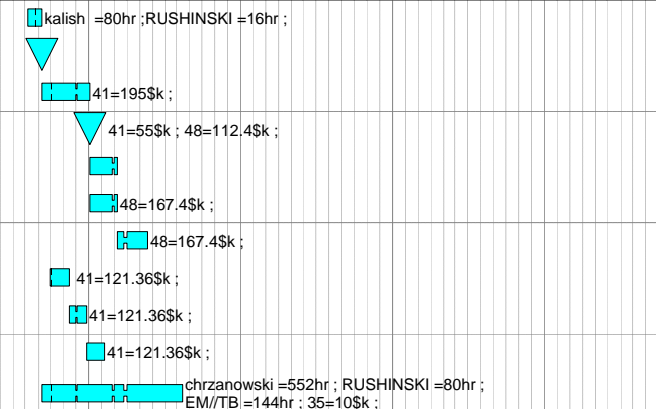


Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
1361C-110		Fab, Test & Deliver Coil #10	1		15APR08*	15APR08	496	47,210.00					
1361C-111		Fab, Test & Deliver Coil #11	1		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													
1302-275		Resolve FDR Chits	51		22FEB08*	02MAY08	1,252	14,168.00					
Job: 1352 - PF Coil Procurement-CHRZANOWSKI													
PF Coil Fabrication													
141-038.1		PF Conductor Delivery	65		21FEB08A	08MAY08	1,621	200,210.40					
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					
141-036	2	PF Coils Awarded	0			30MAY08	303	0.00					
1352-121		Design/Fab Tooling for PF 5	85		02JUN08	30SEP08	304	273,900.00					
1352-122		Design/Fab Tooling for PF 6	85		02JUN08	30SEP08	303	320,100.00					
1352-145		Fabricate/Dlvr PF 5 & 6 Lower	95		01OCT08	23FEB09	304	156,519.00					
1352-145M	2	PF 5&6 Lower Delivered	0			23FEB09	304	0.00					
1352-146		Fabricate/Dlvr PF 5 & 6 Upper	154		24FEB09	30SEP09	456	156,519.00					
1352-120		Tooling for PF 4	55		01OCT08	18DEC08	303	73,656.00					
1352-151		Fabricate/Dlvr PF 4 lower & upper	194		19DEC08	30SEP09	303	41,124.60					
141-031		Title III engr WBS 132	370		05MAY08	23OCT09	1,252	144,916.98					
141-901		PF5 Lower Inspection & Test	5		24FEB09	02MAR09	304	3,545.70					
141-902		PF6 Lower Inspection & Test	5		24FEB09	02MAR09	304	3,545.70					
141-905		PF5 Upper Inspection & Test	5		01OCT09	07OCT09	456	3,649.20					
141-906		PF6 Upper Inspection & Test	5		01OCT09	07OCT09	457	3,649.20					
141-900		PF4 Lower Inspection & Test	5		01OCT09	07OCT09	303	3,649.20					
141-900A		PF4 Upper Inspection & Test	5		01OCT09	07OCT09	461	3,649.20					
141-903		Refurbish PF 1a	20		08OCT10*	04NOV10	154	7,229.60					



Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
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	15,880.20	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	223	2,762.76	kalish =24hr ;				
TRIM-030		Review and Approve SRD	5		18FEB08*	22FEB08	223	0.00					
TRIM-070		Prelim trim coil concept & reqmnts	50*		02JAN08A	11MAR08	218	12,397.00	■ kalish =100hr ; RUSHINSKI=160hr ; CRUIKSHANK=160				
TRIM-071		Layout/Design coils & supports	29*		31JAN08*	11MAR08	218	30,051.26	■ kalish =80hr ; RUSHINSKI=156hr ; CRUIKSHANK=156				
TRIM-080		Analysis	50*		02JAN08A	11MAR08	218	21,252.00	■ DAHLGREN=160				
TRIM-090		Prepare for PDR	7		03MAR08	11MAR08	218	9,846.88	kalish =40hr ; RUSHINSKI =12hr ; CRUIKSHANK=12				
TRIM-100		Trim Coil PDR	1		12MAR08	12MAR08	218	1,877.28	kalish =08hr ;RUSHINSKI =04hr ;				
TRIM-101	2	** Trim Coil PDR **	0			12MAR08	218	0.00	▼				
TRIM-110		Procure Trim Coil Insulation	50		13MAR08	21MAY08	311	70,396.56	■ 41=56.677\$K ;				
TRIM-130		Prepare Conductor Procurement Spec	3		13MAR08	17MAR08	253	3,294.08	kalish =16hr ;RUSHINSKI =04hr ;				
TRIM-140		Review and Approve Conductor Spec.	5		18MAR08	24MAR08	253	0.00					
TRIM-120		Procure Trim Coil Conductor	100		25MAR08	13AUG08	253	6,210.00	■ 41=26.445\$K ;				
TRIM-170		Complete Trim Coil Detailed Drawings	15		13MAR08	02APR08	218	38,290.16	■ kalish =68hr ; RUSHINSKI =114hr ; CRUIKSHANK=114				
TRIM-200		Assy drawings & parts list	10		03APR08	16APR08	218	20,190.00	■ kalish =36hr ; RUSHINSKI =60hr ; CRUIKSHANK=60				
TRIM-210		Prepare for FDR	7		17APR08	25APR08	218	9,846.88	kalish =40hr ; RUSHINSKI =12hr ; CRUIKSHANK=12				
TRIM-220		Trim Coil + Structure FDR	1		28APR08	28APR08	218	1,877.28	kalish =08hr ; RUSHINSKI=04hr ;				
TRIM-221	2	** Trim Coil + Structure FDR **	0			28APR08	218	0.00	▼				
TRIM-230		Resolve Chits	5		29APR08	05MAY08	218	4,250.40	kalish =24hr ;				
TRIM-150		Prepare Trim Coil Procurement Spec.	10		13MAR08	26MAR08	228	8,004.96	kalish =40hr ; RUSHINSKI =08hr ;				
TRIM-160		Approve Procurement Spec	5		27MAR08	02APR08	228	0.00					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
TRIM-240		Trim Coil Procurement	25		06MAY08	10JUN08	218	16,009.92					
TRIM-250	2	AWARD TRIM COIL PROCUREMENT	0			10JUN08	218	0.00					
TRIM-260		Vendor Design and Fixture Fabrication	80		11JUN08	02OCT08	218	242,502.00					
TRIM-270		Fabricate Trim Coils for FPA #1	0			02OCT08	218	0.00					
TRIM-270M	2	Trim Coils for FPA #1 Delivered	45		03OCT08	08DEC08	218	0.00					
TRIM-275		Fabricate Trim Coils for FPA #2	45		03OCT08	08DEC08	317	171,250.20					
TRIM-280		Fabricate Trim Coils for FPA #3	45		09DEC08	18FEB09	317	171,250.20					
TRIM-300		Fabricate Brackets for 1st FPA	30		01JUL08*	12AUG08	299	150,729.12					
TRIM-303		Fabricate Brackets for 2nd FPA	30		13AUG08	24SEP08	383	150,729.12					
TRIM-306		Fabricate Brackets for 3rd FPA	30		25SEP08	05NOV08	383	157,460.55					
TRIM-399		Title III support & oversight	231		11JUN08	14MAY09	1,368	134,970.34					
Job: 1355 - WBS 13 I&C Proc and Coil Assy-COLE													
TF/PF Local I&C													
1355-101		Design, and Review	60		01MAY08*	25JUL08	183	42,280.00					
1355-103		Prepare Installation Procedures	20		28JUL08	22AUG08	183	6,040.00					
1355-105		TF/PF Local I&C - FDR	5	R	25AUG08	29AUG08	183	6,040.00					
1355-107		Prep req,bid,award T/C and wire	20		02SEP08	29SEP08	183	1,812.00					
1355-109		Deliver of T/C and wire	40		30SEP08	24NOV08	183	13,044.00					
1355-111		Installation on PF4,5,6 Coils upon delivery	159*		24FEB09	07OCT09	461	9,822.46					
1355-112		Installation on TF Coils upon delivery	45		25NOV08*	06FEB09	183	29,252.92					
1355-113		Installation on PF1a Coils upon delivery	3		02NOV10	04NOV10	154	1,648.60					
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	10,872.00					
Analysis and closeout documentation													
1416-601	3	Prepare EM and structural analysis of leads	86*		02JAN08A	30APR08	1,627	95,474.88					
1416-603		Update, review and approve FMECA	78*		01NOV07A	29FEB08	1,635	453.00					
1416-604		Finalize draft documents - materials, eddy curre	5		03MAR08	07MAR08	1,635	6,040.00					
1416-605	3	Prepare Type-ABC closeout documentation	15		09APR08*	29APR08	1,613	10,872.00					
1416-606		Resolve documentation comments	15		30APR08	20MAY08	1,613	10,872.00					
Type C Design Closeout													
1403-47C		Perform cool-down/warmup analysis	26		07JUL09*	11AUG09	1,307	7,497.20					



Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
Job: 1408 - MC Winding Supplies-CHRZANOWSKI														
1408-2		Epoxy (existing order)	256*		23MAY07A	02JUN08	149	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		31JAN08*	31JAN08	191	0.00						
1408-4.1		Procure Strain Gages	65		01FEB08*	01MAY08	191	37,260.00	41=38\$K ;					
1408-5		Epoxy/glass for mold shell	255*		23MAY07A	30MAY08	106	5,439.96	41=13\$K ;					
1408-6		VPI clean manifold contract	255*		23MAY07A	30MAY08	185	4,185.54	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	255*		23MAY07A	30MAY08	1,606	17,032.25	EMT/TB =640 ;					
Job: 1451 - Mod Coil Winding-CHRZANOWSKI														
Station 1a/4 Casting Prep														
P1-151		Receive A6, Prep& Instl Cladding	68*	1.5	01NOV07A	15FEB08	131	30,206.03	EM/TB =244hr ; EMT/TB =124 ; EM2/TB =245 ;					
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	170	20,687.77	EM/TB =1509 EMT/TB =32 ;					
P3-170		Instl Chill Plates,Tubing,Bag B6	44	1	02JUN08	01AUG08	106	57,490.16	EM/TB =728					
Station 3-Winding, Instl Chill Plates,Tubing,Bag														
P1-161		Wind coil A6	75	1	18FEB08	28MAR08	131	121,692.77	EM/TB =1509 EMT/TB =32 ;					
P1-170		Instl Chill Plates,Tubing,Bag A6	44	1	31MAR08	30MAY08	131	57,490.16	EM/TB =728					
Station 5-VPI														
P2-051V		VPI (Station 5) C6	12*	1	31JAN08A	15FEB08	219	34,765.73	EM/TB =281hr ; EM2/TB =277 ; EMT/TB =16 ;					
P2-171V		VPI (Station 5) B5	19	1	21FEB08	18MAR08	216	47,514.31	EM/TB =281hr ; EM2/TB =277 ; EMT/TB =16 ;					
P1-171V		VPI (Station 5) A6	19	1	02JUN08	26JUN08	131	47,514.31	EM/TB =281hr ; EM2/TB =277 ; EMT/TB =16 ;					
P3-171V		VPI (Station 5) B6	19	1	04AUG08	28AUG08	106	47,514.31	EM/TB =281hr ; EM2/TB =277 ; EMT/TB =16 ;					
P3-171VM	2	COMPLETE VPI OF 18th MOD COIL	0	1		28AUG08	106	0.00						
Station 1 Post VPI														
P2-051C		Final Clamps & Warm Test (Station1) C6	16	1	18FEB08	10MAR08	220	24,006.88	EM/TB =272 EMT/TB =32 ;					
P3-171C		Final Clamps & Warm Test (Station1) B5	16	1	19MAR08	09APR08	216	24,006.88	EM/TB =272 EMT/TB =32 ;					
P1-171C		Final Clamps & Warm Test (Station1) A6	16	1	27JUN08	21JUL08	134	24,006.88	EM/TB =272 EMT/TB =32 ;					
P2-171C		Final Clamps & Warm Test (Station1) B6	16	1	29AUG08	22SEP08	106	24,006.88	EM/TB =272 EMT/TB =32 ;					
			RB08	NCSX Project			Sheet 5 of 73 21MAR08 16:15							
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Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY					
									FY08	FY09	FY10	FY11	FY12	
LOE Oversight & Supervision														
145XSPRV-2		Winding Engineering oversight and supervision	314*		01MAY07A	31JUL08	1,563	74,971.74						
145XSPRV-3		Winding Engineering oversight and supervision	356*		01MAY07A	30SEP08	1,521	84,886.56						
145XSPRV-A		Winding Engineering oversight and supervision	185*		01NOV07A	31JUL08	1,563	189,776.65						
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						
PLTS-C4		Grinding & Drill Holes -C4	5	1	01OCT07A	10MAR08	214	17,815.63						
PLTS-C5		Grinding & Drill Holes -C5	5	1	01OCT07A	17MAR08	1,659	18,763.27						
PLTS-B5		Grinding -B5	5	1	10APR08	16APR08	216	3,869.53						
PLTS-A6		Grinding -A6	5	1	01OCT07A	23JUL08	134	270.87						
PLTS-B6		Grinding -B6	5	1	23SEP08	29SEP08	106	3,869.53						
PLTS-C6		Grinding & Drill Holes -C6	20	1	11MAR08	07APR08	220	18,952.80						
PLTS-GRIND		Coil to coil fitup modifications (grinding/cp)	165*	1	01DEC07A	31JUL08	1,563	69,177.72						
Punchlist- Coil Technicians														
PLCT-A3		Insul,measure,TC, other punch list-A3	17	1	05JUL07A	14FEB08	174	2,854.77						
PLCT-A4		Insul,measure,TC, other punch list-A4	17	1	06JUL07A	05MAR08	174	11,990.02						
PLCT-B3		Insul,measure,TC, other punch list-B3	14	1	01OCT07A	20MAR08	174	2,114.82						
PLCT-C3		Insul,measure,TC, other punch list-C3	18	1	01OCT07A	07APR08	174	10,431.15						
PLCT-B4		Insul,measure,TC, other punch list-B4	14	1	01OCT07A	21APR08	174	1,464.10						
PLCT-C4		Insul,measure,TC, other punch list-C4	14	1	25JUL07A	02MAY08	184	10,461.95						
PLCT-A5		Insul,measure,TC, other punch list-A5	14	1	30JUL07A	12MAY08	184	13,502.29						
PLCT-A6		Insul,measure,TC,SG other punch list-A6	14	1	01OCT07A	12AUG08	134	13,502.29						
PLCT-B5		Insul,measure,TC, other punch list-B5	14	1	01OCT07A	02SEP08	134	13,502.29						
PLCT-C5		Insul,measure,TC, other punch list-C5	18	1	01OCT07A	10SEP08	134	4,228.84						
PLCT-B6		Insul,measure,TC,SG other punch list-B6	14	1	01OCT07A	17OCT08	106	14,232.62						
PLCT-C6		Insul,measure,TC,SG other punch list-C6	14	1	01OCT07A	25APR08	220	13,436.75						
PLCT-C6M		COMPLETE MODULAR COIL FABRICATION	0	1		25APR08	220	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						

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
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													
1429-3030		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	83	0.00					
1421-3025		Deliver remaining bladders	14*		01APR08	18APR08	83	5,427.54					
1421-3028		Bladders available	0			18APR08	83	0.00					
Bushings													
1421-3115		PPPL Machine bushings Bushings FPA 3	20		01AUG08*	28AUG08	186	9,871.25					
1421-3117		PPPL Machine bushings Bushings FPA 2	40		31JAN08	26MAR08	149	9,871.25					
1421-3109		All Bushings delivered	0			28AUG08	186	0.00					
MIG Welding													
1429-3215		Prep weld procedures	58*		01NOV07A			0.00					
1429-3225		Qualify welders	61*		02JAN08A	26MAR08	1,652	0.00					
1429-3230		Welders qualified and MIG welder available	0			26MAR08	1,652	0.00					
Pucks													
1429-3105		Deliver bar stock	22		31JAN08	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	76	592,395.88					
1429-3066G		Alumina coat outboard shims for 1st HP	25*		18DEC07A			0.00					
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					
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					

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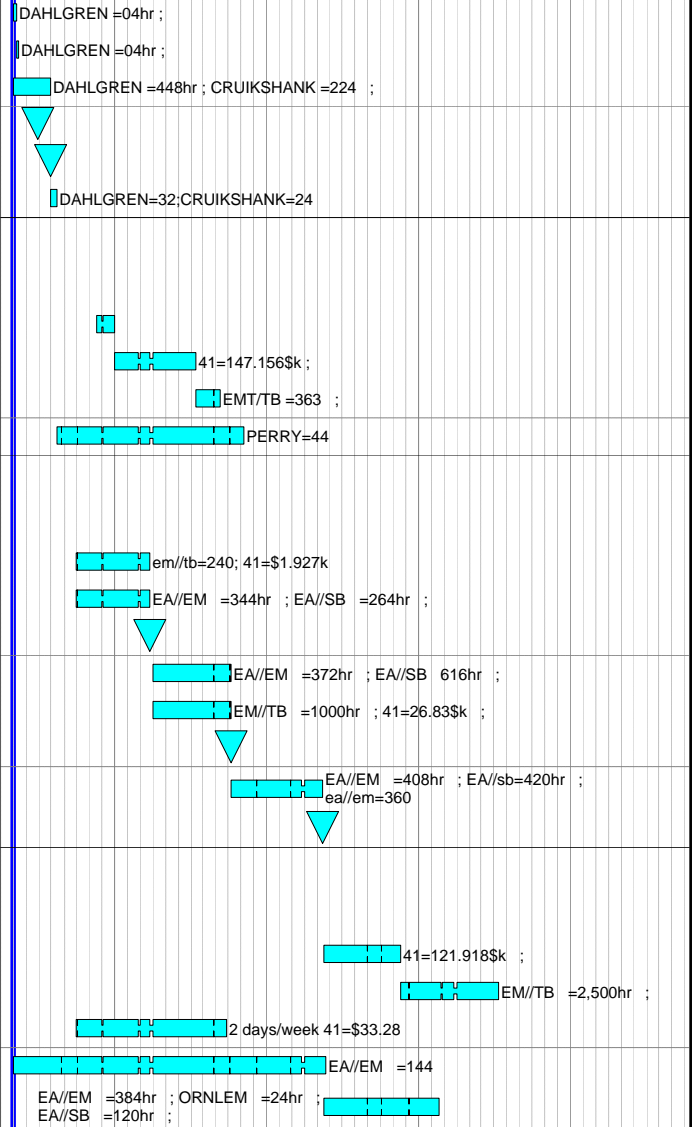
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Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
Shims- C-C Joint													
1429-3062C		PPPL Cut, Grind, debur Outboard Shims	20		01OCT09*	28OCT09	212	22,592.45					
1429-3066C		Apply Alumina to OutboardShims	20		29OCT09	25NOV09	212	5,775.84					
Studs,Washers,Nuts													
1421-3062		balance of studs for a-b-b-c joint PE007717	21*		01FEB08*	29FEB08	134	81,400.68					
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					
1421-3073		Deliver supernuts for c-c joint	40		03JUN08*	29JUL08	547	11,178.00					
Misc Tech Shop Support													
1421-4000		Misc Tech Shop support through sta 2 (1/2	499*		01OCT07A	30SEP09	1,272	118,729.64					
15 - Coil Structures													
Job: 1501 - Coil Structures Design-DAHLGREN													
1501-533		Detail CAD Drawings,BOM	260*		01JUN07A	16JUN08	188	28,638.26					
1501-533F		Integrated Stress Analysis	176*		01OCT07A	16JUN08	188	27,007.75					
1501-536		Issue dwgs for review	0			01APR08*	215	0.00					
1501-535		Develop Interfaces with cryostat	0			01MAY08*	213	0.00					
1501-549		Update C.S.Support Attacgment Design	6		09MAY08	16MAY08	188	8,146.80					
1501-550		Peer review C.S.Design	5		19MAY08	23MAY08	188	1,168.88					
1501-554		Resolve CS peer review Chits	5		27MAY08	02JUN08	188	8,146.80					
1501-562		Prepare Specs for Coil Structure & CSS h/w	10		03JUN08	16JUN08	188	3,542.00					
1501-537		FDR Prep	6		09JUN08	16JUN08	188	3,515.48					
1501-541	3	Coil Support Structures - FDR	0			16JUN08	188	0.00					
1501-545		Resolve Chits	5		17JUN08	23JUN08	188	5,844.40					
1501-558		Prepare requisition for Coil Structure & CSS h/w	10		24JUN08	08JUL08	188	3,542.00					
Job: 1550 - Coil Struct. Procurement -PERRY													
1501-245		Solicit Bids, and Evaluate Bids	35		09JUL08	26AUG08	188	0.00					
162-036.9	2	Award Coil Support Structure	0			02SEP08*	184	0.00					
162-037		Fabricate structure components	100		03SEP08	02FEB09	184	1,142,011.99					
162-037M	2	Deliver Coil Structure components	0			02FEB09	184	0.00					
162-050		Prep req, bid and award G11/Teflon parts	25		01OCT08*	04NOV08	149	0.00					
162-051		Deliver G11/Teflon parts	90		05NOV08	23MAR09	149	153,879.66					
162-052		Prep req, bid and award Inconnel hardware	25		01OCT08*	04NOV08	179	0.00					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY					
									FY08	FY09	FY10	FY11	FY12	
162-053		Deliver Inconnel hardware	60		05NOV08	09FEB09	179	106,586.37		48=104.19\$k ;				
162-055		Prep req, bid and award Belleville Washers	25		01OCT08*	04NOV08	149	0.00						
162-057		Deliver Belleville Washers	90		05NOV08	23MAR09	149	24,422.20		41=18.695\$k ;				
162-031		Title III engr WBS 151	117		03SEP08*	25FEB09	1,424	12,091.25		dahlgren =75hr ;				
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	197	48,937.50		ORNLEM =522hr ;				
191-002	3	LN2 manifolds&pipng- PDR	1		03JUN08	03JUN08	197	1,208.00		ORNLEM =08hr ;				
161-003	3	Resolve PDR comments	5		04JUN08	10JUN08	197	6,040.00		ORNLEM =40hr ;				
161-011A		R&D build mounts & lead terminations	60		11JUN08	04SEP08	197	24,040.00		ornl41= \$18k				
191-011		Title II design WBS 161 LN2 manifolds&pipng	60		11JUN08	04SEP08	197	65,250.00		ORNLEM =522hr ;				
191-012		LN2 manifolds&pipng - FDR	1		05SEP08	05SEP08	197	1,208.00		ORNLEM =08hr ;				
191-037		Prep Req,Bid,Award-manifolds,hoses,valves etc	25		08SEP08*	10OCT08	197	0.00						
191-038		Fab and deliver-manifold assy,hoses,valves etc	90		13OCT08*	26FEB09	197	136,453.09		41=57.23\$k ; EM/TB =522hr ; em/sm=131				
191-031		Title III engr WBS 161	118		08SEP08	03MAR09	1,420	24,040.53		ORNLdm=58hr ;em/em=78;em/sm=40				
162 - Electrical Leads														
132-001		Title I design WBS 162 Coil leads	180*		03DEC07A	21AUG08	199	91,800.00		ORNLEM =938hr ;				
132-002		Electrical Coil leads - PDR	1		22AUG08	22AUG08	199	1,208.00		ORNLEM =08hr ;				
162-003		Resolve PDR comments	5		25AUG08	29AUG08	337	6,040.00		ORNLEM =40hr ;				
132-011		Title II design WBS 162 Coil leads	139		02SEP08	26MAR09	337	119,231.03		ORNLEM =938hr ;				
162-011A		R&D pressure drop simulation	15		02SEP08	22SEP08	461	13,640.00		ORNLEM =40hr ;ornl41=7.6				
162-013		Release final drawings for MC lead stubs	26		25AUG08	30SEP08	207	0.00						
162-013.1		Procure MC lead stubs	65		01OCT08	12JAN09	207	18,806.40		41=14.4k				
132-012		Electrical Coil leads - FDR	1		27MAR09	27MAR09	337	1,263.60		ORNLEM =08hr ;				
132-015		Title III design WBS 162 Coil leads	263		30MAR09	19APR10	337	17,778.35		ORNLEM =110hr ;				
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		41=355.87\$k ;				
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		41=1.157\$k ;				
163 - Coil Protection System														
163.001		Design Coil protection(input to WBS 4 & 5)	65		01OCT08*	12JAN09	435	31,576.20		ORNLEM =100hr ;ornldm=80;ea/em=40				

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
17 - Cryostat and Base Support Structure													
Job: 1702 - Base Support Struct Design-DAHLGREN													
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,	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													
1701-099		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													
1751-151		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	512		31JAN08	19FEB10	1,180	26,634.65					
1751-171		Cryostat- Title III	195		15FEB10	17NOV10	990	93,682.23					



Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
18 - Field Period Assembly														
Job: 1803/1805- FPA Tooling/Constr-BROWNDUDEK														
Station 3-Modular Coil to VVSA Assembly														
1803-3.11		Deliver Support Cart (PE 007703)	69*		15OCT07A			0.00	41=16,351\$k ; PE 007703					
1803S3-1		Flange bolt/VV support access platform	10*		03MAR08*	14MAR08	214	9,074.40	EA/SB =80hr ;					
1803S3-2		Updated Stations 3 and 5 sequence plan	2*		31JAN08*	01FEB08	130	5,667.20	EA/EM =32hr ;					
1803S3-3		Station 3 alignment FDR and clean-up activities	15		21FEB08*	12MAR08	117	17,772.40	EA/EM =40hr ; EM/EM =40hr ; EA/SB =40hr ;					
1803S3-3M		Station 3 alignment FDR	0			12MAR08	117	0.00	▼					
1803S3-4		Generate laser screen trace drawings (3 periods)	15		19JAN09	06FEB09	50	14,007.20	EA/EM =40hr ; EM/EM =40hr ;					
1803S3-5		Analyze single point lift (proof test of support	10*		18FEB08*	29FEB08	224	20,319.20	EA/EM =40hr ; EM/EM =40hr ; EA/EM =40hr ;					
1803S3-6		Station 3 simulation detail model	15*		04FEB08*	22FEB08	229	22,704.00	EA/EM =24hr ; EM/EM =120hr ;					
1803S3-7		VV/MC clearance study (for VVSA1, 2 and 3)	15*		03MAR08*	21MAR08	179	18,453.60	EM/EM =120hr ;					
1803S3-8		Station 3 deflection FEA study	30		24MAR08	02MAY08	179	39,670.40	EA/EM =120hr ; EA/EM =24hr ; EA/EM =80hr ;					
1803S3-10		Complete station 3 design & analysis	0			30SEP08	75	0.00	▼					
1803S3-9		Oversite, cost and schedules, reviews	171		31JAN08*	30SEP08	75	7,084.00	EA/EM =40hr ;					
1805S3-1		Laser mounting brackets (includes a set of 3)	85		13MAR08	11JUL08	117	621.00	41=01\$k ;					
1805S3-2		Left side base grout plates	85		31JAN08	29MAY08	147	2,620.62	41=02\$k ;					
1805S3-3		MCHP lift fixture frame weldment	85		31JAN08	29MAY08	147	9,091.44	41=07\$k ;					
1805S3-4		Lift fixture mounting bracket weldments	85		31JAN08	29MAY08	147	14,717.70	41=12\$k ;					
1805S3-5		Reworked laser frame structure	85		31JAN08	29MAY08	147	1,117.80	41=01\$k ;					
1805S3-6		Right inboard laser frame structure	85		31JAN08	29MAY08	147	1,055.70	41=01\$k ;					
1805S3-7		Left inboard laser frame structure	85		31JAN08	29MAY08	147	844.56	41=01\$k ;					
1805S3-8		Laser screen lexan sheet (1/8 x 48" x 96")	85		31JAN08	29MAY08	147	546.48	41=00\$k ;					
1805S3-9		Estimate for Station 2 type alignment system	85		31JAN08	29MAY08	147	4,024.08	41=03\$k ;					
1805S3-100		Hardware & Misc items	65		31JAN08	30APR08	167	1,242.00	41=01\$k ;					
1805S3-110		Misc assembly Cost	65		31JAN08	30APR08	167	10,060.20	41=08\$k ;					
1805S3-201		MC base support system (left / rt side)	65		31JAN08	30APR08	167	15,512.58	41=12\$k ;					
1805S3-202		Hilman roller - 8-0T plus R & U guides	65		31JAN08	30APR08	167	5,899.50	41=05\$k ;					
1805S3-203		AirLoc Wedgmount Precision Levelers	65		31JAN08	30APR08	167	2,347.38	41=02\$k ;					
1805S3-204		Lift fixture mounting bracket weldments	65		31JAN08	30APR08	167	14,717.70	41=12\$k ;					
1805S3-205		Estimate for Station 2 type alignment system	65		31JAN08	30APR08	167	4,024.08	41=03\$k ;					
1805S3-206		Hardware & Misc items	65		31JAN08	30APR08	167	1,242.00	41=01\$k ;					
1805S3-207		Misc assembly Cost	65		31JAN08	30APR08	167	10,060.20	41=08\$k ;					
Station 5-Final Field Period Assembly														
1803S5-2		Circular ports assembly tooling models and dwgs	12*		31JAN08*	15FEB08	358	11,343.00	EA/SB =100hr ;					
1803S5-3		VV port alignment tooling	10		18FEB08	29FEB08	358	23,242.40	EA/EM =80hr ; EA/SB =80hr ;					

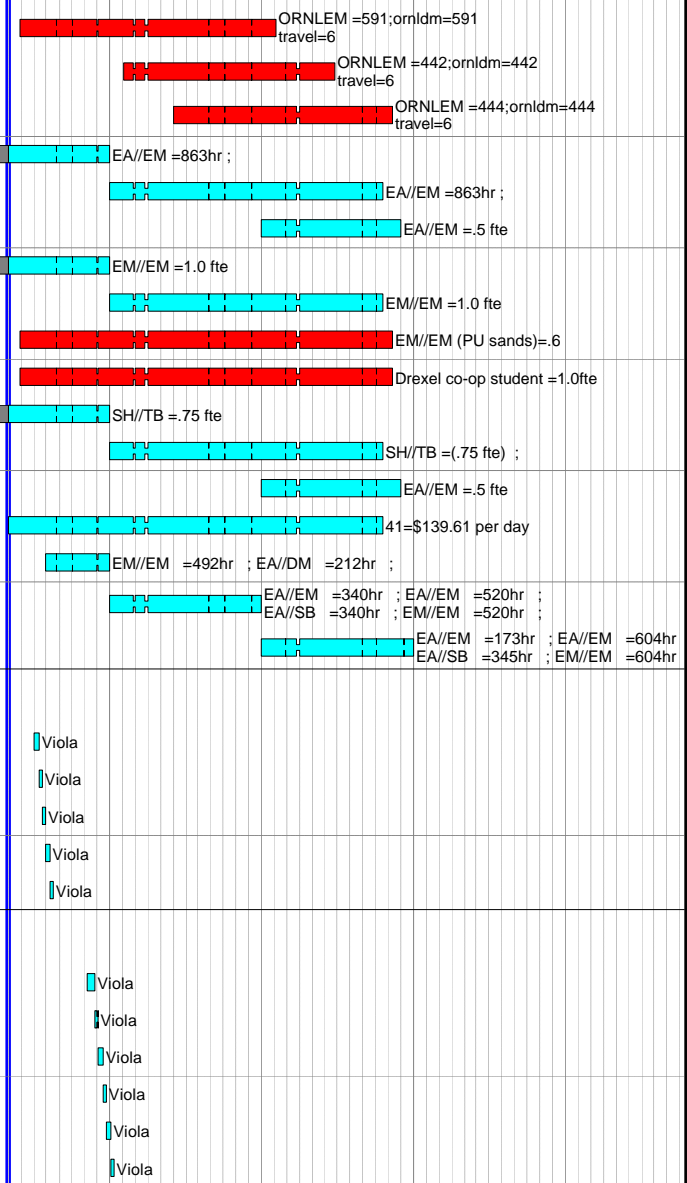
Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
1803S5-4		Station 5 (and 3) lift fixture structures and li	10*		04FEB08*	15FEB08	358	22,444.80					
1803S5-5		Port 4 assembly tooling, models and dwgs	10		18FEB08	29FEB08	358	9,209.60					
1803S5-6		Complete external platform models	10*		17MAR08*	28MAR08	321	9,074.40					
1803S5-7		VV work platforms	17		31MAR08	22APR08	321	13,611.60					
1803S5-8		Station 5 support structural analysis	10*		03MAR08*	14MAR08	348	28,336.00					
1803S5-9		Station 5 PDR activities	10		21FEB08*	05MAR08	355	7,084.00					
1803S5-10		Station 5 FDR - Base support	10		05MAR08*	18MAR08	218	7,084.00					
1803-5.6	3	Station 5 FDR	0			18MAR08	218	0.00					
1803S5-11		Base support release for fabrication	5		19MAR08	25MAR08	341	4,604.80					
1803S5-12		Station 5 FDR - Lift fixtures, port tooling and	10		08APR08*	21APR08	317	7,084.00					
1803S5-13		Complete dwgs package & release for fabrication	5		22APR08	28APR08	317	4,537.20					
1803S5-14		Oversite, cost and schedules, reviews	170		31JAN08*	29SEP08	210	14,168.00					
1803S5-15		Complete station 5 design	0			29SEP08	210	0.00					
1805S5-1		FPA base support system	105		19MAR08	14AUG08	218	6,359.04					
1805S5-2		Type-C side support structure	105		19MAR08	14AUG08	218	3,589.38					
1805S5-3		NB side stabilizing support structure	105		19MAR08	14AUG08	218	2,322.54					
1805S5-4		TF local temporary supports	105		19MAR08	14AUG08	218	683.10					
1805S5-5		20 ton screw jacks	105		19MAR08	14AUG08	218	819.72					
1805S5-6		AirLoc Wedgmount Precision Levelers	105		19MAR08	14AUG08	218	1,242.00					
1805S5-7		Port 4 handling structure	105		19MAR08	14AUG08	218	5,464.80					
1805S5-8		Small port handling structure	105		19MAR08	14AUG08	218	1,366.20					
1805S5-9		Station 5 (and 3) lift fixture structures	105		19MAR08	14AUG08	218	9,327.42					
1805S5-102		Hardware & Misc. items	105		19MAR08	14AUG08	218	1,242.00					
1805S5-103		Misc. assembly Cost	105		19MAR08	14AUG08	218	10,060.20					
6.00-Final Machine Assembly													
1803S6-1		Stage 6 FP support and roller system	39*		05MAY08*	27JUN08	470	76,811.20					
1803S6-2		Spool piece support and roller system	53*		19MAY08*	01AUG08	446	76,811.20					
1803S6-3		Update Station 6 sequence plan	10*		21JUL08*	01AUG08	446	7,084.00					
1803S6-4		External tooling/man access platforms	14*		18AUG08*	05SEP08	417	13,611.60					
1803S6-5		Metrology support stands	5		08SEP08	12SEP08	417	4,537.20					
1803S6-6		Station 6 stress and deflection FEA study	24*		09JUN08*	11JUL08	461	56,672.00					
1803S6-7		Station 6 simulation model and clearance study	24*		23JUN08*	25JUL08	451	26,470.40					
1803S6-8		Station 6 PDR - all systems	5		04JUN08*	10JUN08	483	7,084.00					
1803S6-9		Station 6 FDR - FP support and roller system	10		24JUN08*	08JUL08	255	7,084.00					
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					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
1803S6-11		Station 6 FDR - Spool piece support system	10		23JUL08*	05AUG08	439	7,084.00					
1803S6-12		Spool piece system release for fabrication	5		06AUG08	12AUG08	439	4,537.20					
1803S6-13		Models/dwgs for test cell metrology layout	15*		22SEP08*	10OCT08	397	18,712.85					
1803S6-14		Oversite, cost and schedules, reviews	65		11JUL08	10OCT08	397	14,269.71					
1803S6-16		Complete station 6 design	0			10OCT08	397	0.00					
1805S6-0		Order all fixtures and hardware	20		03SEP08*	30SEP08	196	0.00					
1805S6-1		FPA base support system	150		01OCT08	11MAY09	221	86,196.00					
1805S6-2		AirLoc Wedgmount Precision Levelers	150		01OCT08	11MAY09	221	7,836.00					
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	1,812.00					
Station 3-Modular Coil to VVSA Assembly													
1803-301		Station 3 Assembly Specification	185*		02JUL07A	31MAR08	129	25,368.00					
1803-305		Station 3 Assembly Drawings	185*		02JUL07A	31MAR08	129	6,336.00					
Station 5-Final Field Period Assembly													
1803-501		Station 5 Assembly Specification	48*		01APR08*	06JUN08	203	30,200.00					
1803-505		Station 5 Assembly Drawings	152*		03SEP07A	15APR08	240	14,256.00					
1803-509		Field period Assy Dwgs	132*		01FEB08*	06AUG08	161	47,520.00					
1803-611		Detail dwgs ports	90		01APR08*	06AUG08	161	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	54,442.20					

EA/EM =40hr ;
EA/SB =40hr ;
EA/SB =160hr ;
EA/EM =80hr ;
41=66\$K ;
41=06\$K ;
41=33\$K ;
41=12\$K ;
41=05\$K ;
41=24\$K ;
41=03\$K ;
41=16\$K ;

ORNLDM =200hr ;
ORNLEM =80hr ;
ORNLEM =240hr ;
ORNLDM =160hr ;
ORNLEM =200hr ;
ORNLDM =240hr ;
ORNLDM =480hr ;
ORNLDM =240hr ;
ORNLEM =440hr ;
ORNLDM =640hr ;
ORNLDM =80hr ;
ORNLEM =612;ornldm=600
dsn reviews orlem=320

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY					
									FY08	FY09	FY10	FY11	FY12	
Job: 1802 - FP Assy Oversight&Support-VIOLA														
Oversight and Supervision														
1802ORNLO2		ORNL Title III field period assy station 2	425*		27FEB08	03NOV09	0	156,981.48						
1802ORNLO3		ORNL Title III field period assy station 3	339*		05NOV08	24MAR10	0	122,745.91						
1802ORNLO5		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 suprt .5 fte	227*	2	01OCT09*	31AUG10	1,045	145,377.16						
R1802-007		FPA Management FY08	250*		01OCT07A	30SEP08	1,521	172,504.25						
R1802-008		FPA Management FY09 & FY10	445*		01OCT08*	19JUL10	1,076	484,154.29						
R1802-009		PU Title III support	614*		27FEB08	11AUG10	0	488,098.99						
R1802-010		Drexel co-op student support	614*		27FEB08	11AUG10	0	66,596.14						
R1802-015		HP Coverage in the TFTR TC LOE FY08	250*		01OCT07A	30SEP08	1,521	106,940.22						
R1802-016		HP Coverage in the TFTR TC LOE FY09 & FY10	445*		01OCT08*	19JUL10	1,076	359,984.41						
R1802-017		HP coverage (2nd shift)	227*	2	01OCT09*	31AUG10	1,045	146,950.60						
1802MISC		Misc materials,tools, GSA vehicle,rigging	616*	1	31JAN08	19JUL10	1,076	388,637.38						
8203FY08.2		Title III Design support FY08 PPPL	106*		01MAY08*	30SEP08	1,521	100,040.60						
8203FY09.1		Title III Design support FY09 PPPL	249*		01OCT08*	30SEP09	1,272	286,633.40						
8203FY10.1		Title III Design support FY10 PPPL	248*		01OCT09*	30SEP10	1,024	293,684.09						
Station 3 procedures,JHA,ACC,Training,Prep														
R1802-307		Procedures written & approved	10		01APR08	14APR08	129	0.00						
R1802-309		JHA completed	6		15APR08	22APR08	129	0.00						
R1802-311		Training needs identified & released	6		23APR08	30APR08	129	0.00						
R1802-313		ACC review completed	6		01MAY08	08MAY08	129	0.00						
R1802-315		Pre-job brief completed	6		09MAY08	16MAY08	129	0.00						
Station 5 procedures,JHA,ACC,Training,Prep														
R1802-507		Procedures written & approved	14		07AUG08	26AUG08	161	0.00						
R1802-509		JHA completed	6		27AUG08	04SEP08	161	0.00						
R1802-519		Fixtures installed	6		05SEP08	12SEP08	161	0.00						
R1802-511		Training needs identified & released	6		15SEP08	22SEP08	161	0.00						
R1802-513		ACC review completed	7		23SEP08	01OCT08	161	0.00						
R1802-515		Pre-job brief completed	7		02OCT08	10OCT08	161	0.00						



Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
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						
R1810-004		LOE Crane support, fixture setupfor FY09/10	445*		01OCT08*	19JUL10	1,076	300,205.11						
R1801-004S		LOE Crane support, fixt setup (2nd shft 1.2 fte	227*	2	01OCT09*	31AUG10	1,045	155,608.43						
R1810-007		LOE Field Supervision for FY08	250*		01OCT07A	30SEP08	1,521	159,000.51						
R1810-008		LOE Field Supervision for FY09/10	445*		01OCT08*	19JUL10	1,076	426,574.65						
R1810-008S		LOE Field Supervision for 2nd shft 1.0 fte	227*	2	01OCT09*	31AUG10	1,045	221,117.98						
R1810-2001		Misc Hardware and hardware rework (1/2 fte loe)	615*	1	01FEB08*	19JUL10	1,076	182,042.96						
S21-4.02		Perform routine metrology set-up and checks (loe	526*	1	01FEB08*	12MAR10	1,165	391,710.74						
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	15	1	01FEB08*	21FEB08	273	31,084.20						
R1810-1108		Perform final acceptance testing (H/C flow test)	15	1	26MAR08*	15APR08	250	23,691.00						
R1810-1110		Install Final Internal&Ext monuments & meas	4	1	09APR08	14APR08	226	6,317.60						
R1810-1114		Install heater tape on all removable ports	25	1	11JUL08	14AUG08	165	41,969.00						
R1810-1100		Design & Build heater& thermo termination box	41	1	06MAR08*	01MAY08	220	35,993.40						
R1810-1101		heater& thermo termination & verification	18	1	02MAY08	28MAY08	220	28,429.20						
R1810-1111		Final Scan	4	1	15AUG08	20AUG08	165	6,317.60						
R1810-1113		Prepare &transfer completed VV to holding area	5	1	21AUG08	27AUG08	165	15,794.00						
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						
R1810-1216		Install Final Internal&Ext monuments & meas	20	1	02JUN08	27JUN08	341	6,317.60						
R1810-1214		Install heater tape on all removable ports	25	1	15AUG08	19SEP08	265	41,969.00						
R1810-1389		Heater and thermo termination & verification	18	1	22SEP08*	15OCT08	265	29,441.20						
R1810-1217		Final Scan	4	1	16OCT08	21OCT08	265	6,685.60						
R1810-1219		Prepare& transfer completed VV to holding area	5	1	22OCT08	28OCT08	265	16,714.00						
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						
R1810-1310		Heater and thermo termination & verification	18	1	16OCT08*	10NOV08	288	30,085.20						
R1810-1328		Install Final Internal&Ext monuments & meas	4	1	25SEP08*	30SEP08	317	6,317.60						
R1810-1329	3	Final Scan of VVSA #3 Station 1 complete	4	1	11NOV08	14NOV08	288	6,685.60						
R1810-1314		Install heater tape on all removable ports	25	1	22SEP08*	24OCT08	299	43,717.16						
R1810-1331		Prepare & transfer completed VV to holding area	5	1	17NOV08	21NOV08	288	16,714.00						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
Station 1-Spool pieces (3) (spacers)														
R1810-1S03		Attachdiagnostics, studs and coolant lines	24	1	03NOV08*	08DEC08	426	87,422.40						
R1810-1S04		Install Final Internal&Ext monuments & meas	6	1	21JAN09	28JAN09	426	23,161.60						
Station 2 Trials & Development														
R1810-2005		Trial bushing and shim test on prototype	12	1	31JAN08	15FEB08	1,680	0.00						
Setup														
R1810-2034		Misc Tool and Hardware	440	1	31JAN08	28OCT09	1,252	19,238.05						
R1810-2047		Calibrate stud tensioner	44	1	31JAN08	01APR08	1,648	9,936.00						
R1810-2036		Fuji Paper	20	1	31JAN08	27FEB08	1,672	12,420.00						
R1810-2038		Purchase 5 ton gantry	65	1	31JAN08	30APR08	1,627	12,420.00						
R1810-2045		2 Electric Torque wrench	56	1	31JAN08*	17APR08	1,636	37,260.00						
R1810-2080		3rd laser tracker	65	1	31JAN08*	30APR08	1,627	161,460.00						
R1810-2081		Removable photogrammetry targets	108*	1	31JAN08*	01JUL08	1,584	14,293.76						
R1810-2082		Fixed photogrammetry targets	108*	1	31JAN08*	01JUL08	1,584	59,709.00						
R1810-2083		Replacement photogrammetry targets	65	1	31JAN08*	30APR08	1,627	15,535.76						
R1810-2040		Test out equipt & procedures	173*	1	31JAN08	02OCT08	1,519	11,063.25						
R1810-2004		Receive Drawings & Hardware (shims & Bolts)	7	1	31JAN08	08FEB08	239	0.00						
R1810-2027		Install THIRD Holding 20 deg fixture	10	1	01APR08*	14APR08	1,639	11,960.40						
R1810-2021		Tools&tooling available for FPA operations	0*	1	15APR08	14APR08	1,639	0.00						
R1810-2084		Design and purchase 3 additional wedge supports	87*	1	31JAN08	02JUN08	18	147,766.48						
R1810-2024		Rework wedges f/combined assemblies& coil	10	1	31JAN08	13FEB08	1,682	15,794.00						
R1810-2026		Setup up satellite shop in Mock-up area	15	1	31JAN08	20FEB08	1,677	51,738.60						
R1810-2085		Trak 3 axis mill	65	1	31JAN08*	30APR08	1,627	40,986.00						
R1810-2086		Trak 3 axis mill collet set	65	1	31JAN08*	30APR08	1,627	1,242.00						
R1810-2087		Coordinate measuring machine	65	1	31JAN08*	30APR08	1,627	48,438.00						
R1810-2088		HEPA machine tool exhaust system	65	1	31JAN08*	30APR08	1,627	9,936.00						
R1810-2089		Tools, cabinets & storage shelving	65	1	31JAN08*	30APR08	1,627	9,936.00						
R1810-2002		Purchase grinding machine	45	1	31JAN08	02APR08	1,647	49,680.00						
R1810-2090		Consulting services nose welding (Parsells)	644	1	31JAN08*	26AUG10	1,048	207,966.21						
S20-3.03		Compress G10 shims & sort (initial 300 shims)	6	1	31JAN08*	07FEB08	16	9,476.40						
S20-4.01		Install MCHP fixtures & metrology equipt	67	1	01APR08*	03JUL08	1,582	17,158.20						
S20-4.02		Perform metrology set-up;purchase 6 pillars	43	1	31JAN08*	31MAR08	1,649	9,936.00						
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						

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
Pre measurement of MCHP A2,B2,C2 flanges														
S22-1.01		Verify mating MC's of MCHP will come together	38*	1	02JAN08A	22FEB08	93	10,108.16	EM/TB =160hr ;					
2-2-2.99		Drill Stycast fill holes	3	1	27MAR08*	31MAR08	121	9,476.40	em/tb=120					
S22-3.02		Compress shims sort by thickness	4	1	07MAR08*	12MAR08	80	6,317.60	EM/TB =80hr ;					
S22-4.01		Install MCHP fixtures & metrology equipt	6	1	05MAR08	12MAR08	80	9,476.40	em/tb=120 ;					
S22-4.03		Ready For Preassembly A2B2C2	0	1		12MAR08	80	0.00						
Pre measurement of MCHP A3,B3,C3 flanges														
S23-1.01		Verify mating MC's of MCHP will come together	4	1	13MAR08	18MAR08	114	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 equipt	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 equipt	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 ;					
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	11SEP08	15SEP08	134	9,476.40	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	28APR08	07MAY08	220	12,635.20	EM/TB =160hr ;					
S26-2.08		Measure B6 "A" flange	8	1	20OCT08	29OCT08	106	25,198.40	EM/TB =400hr ; ZMET =96 ;					
S26-2.11		Measure C6 "A" flange	8	1	28APR08	07MAY08	228	23,806.72	EM/TB =400hr ; ZMET =96 ;					
S26-2.14		Measure Type A6"A" flange	8	1	13AUG08	22AUG08	153	12,468.40	EM/TB =40hr ; ZMET =80 ;					
2-6-2.99		Drill Stycast fill holes	3	1	30OCT08	03NOV08	106	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 ;					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
S26-4.01		Install MCHP fixtures & metrology equip	6	1	06APR09	13APR09	0	10,028.40					
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 weld on	10	1	31MAR08	11APR08	0	4,422.06	EM/TB =00hr ;	ZMET =38 ;			
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 ;			

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
2-1-6.29		Install bushing. Replace nut & tighten back 50%	3	1	16MAY08	20MAY08	0	5,685.84					
2-1-6.30		After super bolt tightening, measure position	1	1	21MAY08	21MAY08	0	3,351.46					
2-1-6.31		Tighten all bolts to final torque.	1	1	22MAY08	22MAY08	0	1,895.28					
2-1-6.32		After tightening hardware, measure position	2	1	23MAY08	27MAY08	0	3,351.46					
2-1-6.33		Weld A / B nose region solenoid side	3	1	28MAY08	30MAY08	0	12,388.75					
2-1-6.34		Measure positions of all monuments	1	1	02JUN08	02JUN08	0	2,234.30					
2-1-6.35		Review with Back Office. INSTALL wing supports	10	1	03JUN08	16JUN08	0	8,259.17					
2-1-6.36		Identify, a set of monuments moved less than .0	0	1	17JUN08	16JUN08	0	0.00					
2-1-6.37		Fill all loose bushings with Stycast 2850FT	6	1	17JUN08	24JUN08	0	3,790.56					
2-1-6.38		Scan "B" flange (datum "E") of "B" coil,	1	1	24JUN08	24JUN08	0	2,234.30					
2-1-6.39		define all B/C flange shim thickness.	2	1	25JUN08	26JUN08	0	2,842.92					
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					
2-1-7.02		Select a subset of monuments for initial alignm	1	1	02JUL08	02JUL08	0	2,234.30					
2-1-7.03		Align set of monuments selected in 7.02.	1	1	03JUL08	03JUL08	0	2,234.30					
2-1-7.04		Establish a set of global monuments	1	1	07JUL08	07JUL08	0	2,234.30					
2-1-7.05		Mark nose shim locations & puck locations.	1	1	08JUL08	08JUL08	0	1,895.28					
2-1-7.06		Place initial set alumina shims (4-8) on Type-B	0	1	09JUL08	08JUL08	0	0.00					
2-1-7.08		Lower mating "C" coil into position.	1	1	09JUL08	09JUL08	0	3,790.56					
2-1-7.081		Perform alignment "C" coil tooling balls	1	1	10JUL08	10JUL08	0	2,234.30					
2-1-7.09		Install jack screws & dial indicators	1	1	11JUL08	11JUL08	0	1,895.28					
2-1-7.10		Position coil within ±.002"	1	1	14JUL08	14JUL08	0	1,895.28					
2-1-7.11		Install alumina coated shims studs, & "wobble"	1	1	15JUL08	15JUL08	0	2,842.92					
2-1-7.12		Torque 50% of final value.	1	1	16JUL08	16JUL08	0	947.64					
2-1-7.13		Measure position of all monuments	2	1	17JUL08	18JUL08	0	3,351.46					
2-1-7.14		Measure shim puck height	1	1	21JUL08	21JUL08	0	1,895.28					
2-1-7.15		remove puck locating rings & install all nose s	3	1	22JUL08	24JUL08	0	5,685.84					
2-1-7.16		"Lightly" tack weld nose flex shims	1	1	25JUL08	25JUL08	0	947.64					
2-1-7.17		remove "C" coil & place it on a separate fixtur	1	1	28JUL08	28JUL08	0	3,790.56					
2-1-7.18		Recheck part alignment & weld all Type-B flex s	3	1	29JUL08	31JUL08	0	6,702.91					
2-1-7.19		After welding "B" coil nose shims recheck align	1	1	01AUG08	01AUG08	0	2,234.30					
2-1-7.20		Back office assessment of part after weld	2	1	04AUG08	05AUG08	0	4,468.61					
2-1-7.21		Measure "C" fiducials	1	1	04AUG08	04AUG08	1	2,234.30					
2-1-7.22		Weld all Type-C (A-flange) flex shims plasma sid	2	1	06AUG08	07AUG08	0	3,790.56					
2-1-7.23		After welding determine metrology acceptance	1	1	08AUG08	08AUG08	0	2,234.30					
2-1-7.24		Back office assessment	2	1	11AUG08	12AUG08	0	4,468.61					
2-1-7.25		Remove alumina shims for alignment mating	0	1	11AUG08	08AUG08	1	0.00					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
2-2-7.31		Adjust shims locally. Re-torque all studs50%.	2	1	12SEP08	15SEP08	50	3,158.80					
2-2-7.32		Install bushing. Replace nut & tighten back50%	3	1	16SEP08	18SEP08	50	4,738.20					
2-2-7.33		After super bolt tightening, measure position	1	1	19SEP08	19SEP08	50	2,792.88					
2-2-7.34		Tighten all bolts to final torque.	1	1	22SEP08	22SEP08	50	1,579.40					
2-2-7.35		After tightening hardware, meas position of monu	1	1	23SEP08	23SEP08	50	2,792.88					
2-2-7.36		Weld B / C nose region solenoid side	3	1	24SEP08	26SEP08	50	4,738.20					
2-2-7.37		Measure positions of all monuments	1	1	29SEP08	29SEP08	50	1,861.92					
2-2-7.38		Back office of above results & INSTALL wing supp	2	1	30SEP08	01OCT08	50	3,833.12					
2-2-7.39		Fill all lose bushings with Stycast 2850FT	2	1	02OCT08	03OCT08	50	3,342.80					
Stycast shim gaps & final measurements													
2-2-8.01		Fill all wing bladders & cure	2	1	06OCT08	07OCT08	50	3,342.80					
2-2-8.02		Inject stycast in all shim spaces	2	1	08OCT08	09OCT08	50	3,342.80					
2-2-10.0		Complete local service & interface details	10	1	10OCT08	23OCT08	50	0.00					
2-2-11.01		Measure tooling balls on all coils.	2	1	24OCT08	27OCT08	50	3,942.40					
2-2-11.02		Install or identify three primary fiducials	2	1	28OCT08	29OCT08	50	3,942.40					
2-2-11.03		Scan "B" flange Type-C coil & interfacing base	3	1	30OCT08	03NOV08	50	5,913.60					
2-2-11.04		Measure bolt length on all tension fasteners	1	1	04NOV08	04NOV08	50	1,671.40					
2-2-11.05		Perform Electrical Megger test on each coil	2	1	05NOV08	06NOV08	50	3,342.80					
2-2-11.06		Mark part for identification	0	1	07NOV08	06NOV08	50	0.00					
2-2-11.07		Install lift support beams	2	1	07NOV08	10NOV08	50	6,685.60					
2-2-11.08		Remove from stand & measure weight of	1	1	11NOV08	11NOV08	50	3,342.80					
2-2-11.09		Move to holding area.	2	1	12NOV08	13NOV08	50	6,685.60					
2-2-11.10		Lift upper wedge & reinstall & grout at Assembly	10	1	14NOV08	01DEC08	81	16,714.00					
Station 2 MC subassy A3B3C3													
A-B MC Assembly													
2-3-6.01		Lower Type-A modular coil onto jacks	3	1	02JUL08	07JUL08	40	15,062.16					
2-3-6.02		Mark nose shim locations & puck locations.	0	1	08JUL08	07JUL08	40	0.00					
2-3-6.03		Place initial set of alumina shims (4-8) on Type	1	1	08JUL08	08JUL08	40	1,579.40					
2-3-6.05		Lower mating "B" coil into position.	1	1	09JUL08	09JUL08	40	3,158.80					
2-3-6.051		Perform alignment "B" coil tooling balls	1	1	10JUL08	10JUL08	40	1,861.92					
2-3-6.06		Install jack screws & dial indicators	1	1	11JUL08	11JUL08	40	1,579.40					
2-3-6.07		Position coil within ±.002" normal plane	1	1	14JUL08	14JUL08	40	5,020.72					
2-3-6.08		Install remaining alumina coated shims; studs,s	1	1	15JUL08	15JUL08	40	2,369.10					
2-3-6.09		torque50% of final value & recheck.	1	1	16JUL08	16JUL08	40	789.70					
2-3-6.10		Measure position of all monuments	2	1	17JUL08	18JUL08	40	3,723.84					
2-3-6.11		Measure shim puck height	2	1	21JUL08	22JUL08	40	2,369.10					
2-3-6.12		Remove puck locating rings & install all nose s	3	1	23JUL08	25JUL08	40	4,738.20					
2-3-6.13		"Lightly" tack weld nose flex shims "A" & "B"	1	1	28JUL08	28JUL08	40	789.70					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY					
									FY08	FY09	FY10	FY11	FY12	
2-3-6.14		Unfasten bolts & remove "B" coil place it on sep	1	1	29JUL08	29JUL08	40	3,158.80		EM/TB =40hr ;				
2-3-6.15		Recheck part alignment of "A" coil	2	1	30JUL08	31JUL08	40	6,882.64		EM/TB =40hr ; ZMET =32 ;				
2-3-6.151		Weld all Type-A flex shims plasma side	2	1	01AUG08	04AUG08	40	6,882.64		EM/TB =40hr ; ZMET =32 ;				
2-3-6.16		recheck alignment	1	1	05AUG08	05AUG08	40	1,861.92		EM/TB =00hr ; ZMET =16 ;				
2-3-6.17		Back office assessment of part after weld	2	1	06AUG08	07AUG08	40	3,723.84		EM/TB =00hr ; ZMET =32 ;				
2-3-6.18		Measure "B" fiducials estab coord sys	1	1	06AUG08	06AUG08	41	1,861.92		EM/TB =00hr ; ZMET =16 ;				
2-3-6.19		Weld all Type-B (A-flange) flex shims plasma sid	2	1	08AUG08	11AUG08	40	6,882.64		EM/TB =40hr ; ZMET =32 ;				
2-3-6.20		Recheck part metrology acceptance criterion.	1	1	12AUG08	12AUG08	40	1,861.92		EM/TB =00hr ; ZMET =16 ;				
2-3-6.21		Back office assessment of part after weld	2	1	13AUG08	14AUG08	40	3,723.84		EM/TB =00hr ; ZMET =32 ;				
2-3-6.22		Remove alumina shims as necessary	0	1	13AUG08	12AUG08	41	0.00		EM/TB =00hr ;				
2-3-6.04		Place unfilled shim bags in wing areas	1	1	13AUG08	13AUG08	41	1,579.40		EM/TB =20hr ;				
2-3-6.23		Lower mating "B" coil into position.	1	1	15AUG08	15AUG08	40	3,158.80		EM/TB =40hr ;				
2-3-6.231		Perform alignment "B" coil tooling balls	1	1	18AUG08	18AUG08	40	1,861.92		EM/TB =00hr ; ZMET =16 ;				
2-3-6.24		"B" coil, position coil accurately in x, y, &	1	1	19AUG08	19AUG08	40	3,441.32		EM/TB =20hr ; ZMET =16 ;				
2-3-6.25		Install alumina shims;studs, supernuts, wiggle t	1	1	20AUG08	20AUG08	40	5,161.98		EM/TB =30hr ; ZMET =24 ;				
2-3-6.26		Torque50% of final value.	1	1	21AUG08	21AUG08	40	789.70		EM/TB =10hr ;				
2-3-6.27		Measure position of all monuments	2	1	22AUG08	25AUG08	40	2,792.88		ZMET =24 ; EM/TB =00hr ;				
2-3-6.28		Adjust shims locally. Re-torque all studs50%.	3	1	26AUG08	28AUG08	40	10,323.96		ZMET =48 ; EM/TB =60hr ;				
2-3-6.29		Install bushing. Replace nut & tighten back 50%	3	1	29AUG08	03SEP08	40	4,738.20		EM/TB =60hr ;				
2-3-6.30		After super bolt tightening, measure position	1	1	04SEP08	04SEP08	40	2,792.88		ZMET =24 ; EM/TB =00hr ;				
2-3-6.31		Tighten all boltsir final torque.	1	1	05SEP08	05SEP08	40	1,579.40		EM/TB =20hr ;				
2-3-6.32		After tightening hardware, measure position	2	1	08SEP08	09SEP08	40	2,792.88		ZMET =24 ; EM/TB =00hr ;				
2-3-6.33		Weld A / B nose region solenoid side	3	1	10SEP08	12SEP08	40	10,323.96		EM/TB =60hr ; ZMET =48 ;				
2-3-6.34		Measure positions of all monuments	1	1	15SEP08	15SEP08	40	1,861.92		EM/TB =00hr ; ZMET =16 ;				
2-3-6.35		Review with Back Office. INSTALL wing supports	2	1	16SEP08	17SEP08	40	6,882.64		EM/TB =40hr ; ZMET =32 ;				
2-3-6.36		Identify, a set of monuments moved less than .0	0	1	18SEP08	17SEP08	40	0.00		EM/TB =00hr ;				
2-3-6.37		Fill all loose bushings with Stycast 2850FT	2	1	18SEP08	19SEP08	40	3,158.80		EM/TB =40hr ;				
2-3-6.38		Scan "B" flange (datum "E") of "B" coil,	1	1	22SEP08	22SEP08	40	1,861.92		EM/TB =00hr ; ZMET =16 ;				
2-3-6.39		define all B/C flange shim thickness.	1	1	23SEP08	23SEP08	40	2,369.10		EM/TB =30hr ;				
AB-C MC Assembly														
2-3-7.01		lift (A-B) coil, along with fixture, onto anot	3	1	19NOV08	21NOV08	0	10,028.40		EM/TB =120hr ;				
2-3-7.02		Select a subset of monuments for initial alignm	1	1	24NOV08	24NOV08	0	1,971.20		EM/TB =00hr ; ZMET =16 ;				
2-3-7.03		Align set of monuments selected in 7.02.	1	1	25NOV08	25NOV08	0	1,971.20		EM/TB =00hr ; ZMET =16 ;				
2-3-7.04		Establish a set of global monuments	1	1	26NOV08	26NOV08	0	1,971.20		EM/TB =00hr ; ZMET =16 ;				
2-3-7.05		Mark nose shim locations & puck locations.	1	1	01DEC08	01DEC08	0	1,671.40		EM/TB =20hr ;				
2-3-7.06		Place initial set alumina shims (4-8) on Type-B	0	1	02DEC08	01DEC08	0	0.00		EM/TB =00hr ;				
2-3-7.08		Lower mating "C" coil into position.	1	1	02DEC08	02DEC08	0	3,342.80		EM/TB =40hr ;				

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY					
									FY08	FY09	FY10	FY11	FY12	
2-3-7.081		Perform alignment "C" coil tooling balls	1	1	03DEC08	03DEC08	0	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-3-7.09		Install jack screws & dial indicators	1	1	04DEC08	04DEC08	0	1,671.40			EM//TB =20hr ;			
2-3-7.10		Position coil within ±.002"	1	1	05DEC08	05DEC08	0	1,671.40			EM//TB =20hr ;			
2-3-7.11		Install alumina coated shims studs, & "wobble"	1	1	08DEC08	08DEC08	0	2,507.10			EM//TB =30hr ;			
2-3-7.12		Torque50% of final value.	1	1	09DEC08	09DEC08	0	835.70			EM//TB =10hr ;			
2-3-7.13		Measure position of all monuments	2	1	10DEC08	11DEC08	0	2,956.80			EM//TB =00hr ; ZMET =24 ;			
2-3-7.14		Measure shim puck height	1	1	12DEC08	12DEC08	0	1,671.40			EM//TB =20hr ;			
2-3-7.15		remove puck locating rings & install all nose s	3	1	15DEC08	17DEC08	0	5,014.20			EM//TB =60hr ;			
2-3-7.16		"Lightly" tack weld nose flex shims	1	1	18DEC08	18DEC08	0	835.70			EM//TB =10hr ;			
2-3-7.17		remove "C" coil & place it on a separate fixtur	1	1	19DEC08	19DEC08	0	3,342.80			EM//TB =40hr ;			
2-3-7.18		Recheck part alignment & weld all Type-B flex s	3	1	22DEC08	02JAN09	0	5,913.60			EM//TB =00hr ; ZMET =48 ;			
2-3-7.19		After welding "B" coil nose shims recheck align	1	1	05JAN09	05JAN09	0	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-3-7.20		Back office assessment of part after weld	2	1	06JAN09	07JAN09	0	3,942.40			EM//TB =00hr ; ZMET =32 ;			
2-3-7.21		Measure "C" fiducials	1	1	06JAN09	06JAN09	1	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-3-7.22		Weld all Type-C (A-flange) flex shims plasma sid	2	1	08JAN09	09JAN09	0	3,342.80			EM//TB =40hr ;			
2-3-7.23		After welding determine metrology acceptance	1	1	12JAN09	12JAN09	0	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-3-7.24		Time for a back office assessment	2	1	13JAN09	14JAN09	0	3,942.40			EM//TB =00hr ; ZMET =32 ;			
2-3-7.25		Remove alumina shims for alignment mating	0	1	15JAN09	14JAN09	0	0.00			EM//TB =00hr ;			
2-3-7.26		Lower mating "C" coil into position.	1	1	16JAN09	16JAN09	0	3,342.80			EM//TB =40hr ;			
2-3-7.07		Place unfilled shim bags in wing areas	1	1	15JAN09	15JAN09	0	1,671.40			EM//TB =20hr ;			
2-3-7.261		alignment "C" coil tooling balls	1	1	19JAN09	19JAN09	0	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-3-7.27		position coil accurately in x, y, & z directio	1	1	20JAN09	20JAN09	0	1,671.40			EM//TB =20hr ;			
2-3-7.28		Install alumina shims;studs,, & "wobble"	1	1	21JAN09	21JAN09	0	2,507.10			EM//TB =30hr ;			
2-3-7.29		Torque50% of final value.	1	1	22JAN09	22JAN09	0	835.70			EM//TB =10hr ;			
2-3-7.30		Measure position of all monuments	2	1	23JAN09	26JAN09	0	2,956.80			EM//TB =00hr ; ZMET =24 ;			
2-3-7.31		Adjust shims locally. Re-torque all studs50%.	2	1	27JAN09	28JAN09	0	3,342.80			EM//TB =40hr ;			
2-3-7.32		Install bushing. Replace nut & tighten back50%	3	1	29JAN09	02FEB09	0	5,014.20			EM//TB =60hr ;			
2-3-7.33		After super bolt tightening, measure position	1	1	03FEB09	03FEB09	0	2,956.80			EM//TB =00hr ; ZMET =24 ;			
2-3-7.34		Tighten all bolts to final torque.	1	1	04FEB09	04FEB09	0	1,671.40			EM//TB =20hr ;			
2-3-7.35		After tightening hardware, meas position of monu	1	1	05FEB09	05FEB09	0	2,956.80			ZMET =24 ; EM//TB =00hr ;			
2-3-7.36		Weld B / C nose region solenoid side	3	1	06FEB09	10FEB09	0	5,014.20			EM//TB =60hr ;			
2-3-7.37		Measure positions of all monuments	1	1	11FEB09	11FEB09	0	1,971.20			EM//TB =00hr ; ZMET =16 ;			
2-3-7.38		Back office of above results & INSTALL wing supp	2	1	12FEB09	13FEB09	0	3,942.40			EM//TB =00hr ; ZMET =32 ;			
2-3-7.39		Fill all lose bushings with Stycast 2850FT	2	1	16FEB09	17FEB09	0	3,342.80			EM//TB =40hr ;			
Stycast shim gaps & final measurements														
2-3-8.01		Fill all wing bladders & cure	2		18FEB09	19FEB09	0	3,342.80			EM//TB =40hr ;			
2-3-8.02		Inject stycast in all shim spaces	2	1	20FEB09	23FEB09	0	3,342.80			EM//TB =40hr ;			

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12		
2-3-10.0		Complete local service & interface details	10	1	24FEB09	09MAR09	0	0.00							
2-3-11.01		Measure tooling balls on all coils.	2	1	10MAR09	11MAR09	0	3,942.40							
2-3-11.02		Install or identify three primary fiducials	2	1	12MAR09	13MAR09	0	3,942.40							
2-3-11.03		Scan "B" flange Type-C coil & interfacing base	3	1	16MAR09	18MAR09	0	5,913.60							
2-3-11.04		Measure bolt length on all tension fasteners	1	1	19MAR09	19MAR09	0	1,671.40							
2-3-11.05		Perform Electrical Megger test on each coil	2	1	20MAR09	23MAR09	0	3,342.80							
2-3-11.06		Mark part for identification	0	1	24MAR09	23MAR09	0	0.00							
2-3-11.07		Install lift support beams	2	1	24MAR09	25MAR09	0	6,685.60							
2-3-11.08		Remove from stand & measure weight of	1	1	26MAR09	26MAR09	0	3,342.80							
2-3-11.09		Move to holding area.	2	1	27MAR09	30MAR09	0	6,685.60							
2-3-11.09M	2	Complete 3rd MCHP Assy (Sta.2)	0	1		30MAR09	0	0.00							
2-3-11.10		Lift upper wedge & reinstall & grout at Assembly	10	1	31MAR09	13APR09	0	16,714.00							
Station 2 MC subassy A4B4C4															
A-B MC Assembly															
2-4-6.01		Lower Type-A modular coil onto jacks	3	1	24NOV08	26NOV08	31	15,942.00							
2-4-6.02		Mark nose shim locations & puck locations.	0	1	01DEC08	26NOV08	31	0.00							
2-4-6.03		Place initial set of alumina shims (4-8) on Type	1	1	01DEC08	01DEC08	31	1,671.40							
2-4-6.05		Lower mating "B" coil into position.	1	1	02DEC08	02DEC08	31	3,342.80							
2-4-6.051		Perform alignment "B" coil tooling balls	1	1	03DEC08	03DEC08	31	1,971.20							
2-4-6.06		Install jack screws & dial indicators	1	1	04DEC08	04DEC08	31	1,671.40							
2-4-6.07		Position coil within ±0.002" normal plane	1	1	05DEC08	05DEC08	31	5,314.00							
2-4-6.08		Install remaining alumina coated shims; studs,s	1	1	08DEC08	08DEC08	31	2,507.10							
2-4-6.09		torque50% of final value & recheck.	1	1	09DEC08	09DEC08	31	835.70							
2-4-6.10		Measure position of all monuments	2	1	10DEC08	11DEC08	31	3,942.40							
2-4-6.11		Measure shim puck height	2	1	12DEC08	15DEC08	31	2,507.10							
2-4-6.12		Remove puck locating rings & install all nose s	3	1	16DEC08	18DEC08	31	5,014.20							
2-4-6.13		"Lightly" tack weld nose flex shims "A" & "B"	1	1	19DEC08	19DEC08	31	835.70							
2-4-6.14		Unfasten bolts & remove "B" coil place it on sep	1	1	22DEC08	22DEC08	31	3,342.80							
2-4-6.15		Recheck part alignment of "A" coil	2	1	23DEC08	02JAN09	31	7,285.20							
2-4-6.151		Weld all Type-A flex shims plasma side	2	1	05JAN09	06JAN09	31	7,285.20							
2-4-6.16		recheck alignment	1	1	07JAN09	07JAN09	31	1,971.20							
2-4-6.17		Back office assessment of part after weld	2	1	08JAN09	09JAN09	31	3,942.40							
2-4-6.18		Measure "B" fiducials estab coord sys	1	1	08JAN09	08JAN09	32	1,971.20							
2-4-6.19		Weld all Type-B (A-flange) flex shims plasma sid	2	1	12JAN09	13JAN09	31	7,285.20							
2-4-6.20		Recheck part metrology acceptance criterion.	1	1	14JAN09	14JAN09	31	1,971.20							
2-4-6.21		Back office assessment of part after weld	2	1	15JAN09	16JAN09	31	3,942.40							
2-4-6.22		Remove alumina shims as necessary	0	1	15JAN09	14JAN09	32	0.00							
2-4-6.04		Place unfilled shim bags in wing areas	1	1	15JAN09	15JAN09	32	1,671.40							

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12		
2-4-6.23		Lower mating "B" coil into position.	1	1	19JAN09	19JAN09	31	3,342.80			EM//TB =40hr ;				
2-4-6.231		Perform alignment "B" coil tooling balls	1	1	20JAN09	20JAN09	31	1,971.20			EM//TB =00hr ; ZMET =16 ;				
2-4-6.24		"B" coil, position coil accurately in x, y, &	1	1	21JAN09	21JAN09	31	3,642.60			EM//TB =20hr ; ZMET =16 ;				
2-4-6.25		Install alumina shims;studs,supernuts, wiggle t	1	1	22JAN09	22JAN09	31	5,463.90			EM//TB =30hr ; ZMET =24 ;				
2-4-6.26		Torque50% of final value.	1	1	23JAN09	23JAN09	31	835.70			EM//TB =10hr ;				
2-4-6.27		Measure position of all monuments	2	1	26JAN09	27JAN09	31	2,956.80			ZMET =24 ; EM//TB =00hr ;				
2-4-6.28		Adjust shims locally. Re-torque all studs50%.	3	1	28JAN09	30JAN09	31	10,927.80			EM//TB =60hr ; ZMET =48 ;				
2-4-6.29		Install bushing. Replace nut & tighten back 50%	3	1	02FEB09	04FEB09	31	5,014.20			EM//TB =60hr ;				
2-4-6.30		After super bolt tightening, measure position	1	1	05FEB09	05FEB09	31	2,956.80			ZMET =24 ; EM//TB =00hr ;				
2-4-6.31		Tighten all boltsir final torque.	1	1	06FEB09	06FEB09	31	1,671.40			EM//TB =20hr ;				
2-4-6.32		After tightening hardware, measure position	2	1	09FEB09	10FEB09	31	2,956.80			ZMET =24 ; EM//TB =00hr ;				
2-4-6.33		Weld A / B nose region solenoid side	3	1	11FEB09	13FEB09	31	10,927.80			EM//TB =60hr ; ZMET =48 ;				
2-4-6.34		Measure positions of all monuments	1	1	16FEB09	16FEB09	31	1,971.20			EM//TB =00hr ; ZMET =16 ;				
2-4-6.35		Review with Back Office. INSTALL wing supports	2	1	17FEB09	18FEB09	31	7,285.20			EM//TB =40hr ; ZMET =32 ;				
2-4-6.36		Identify, a set of monuments moved less than .0	0	1	19FEB09	18FEB09	31	0.00			EM//TB =00hr ;				
2-4-6.37		Fill all loose bushings with Stycast 2850FT	2	1	19FEB09	20FEB09	31	3,342.80			EM//TB =40hr ;				
2-4-6.38		Scan "B" flange (datum "E") of "B" coil,	1	1	23FEB09	23FEB09	31	1,971.20			EM//TB =00hr ; ZMET =16 ;				
2-4-6.39		define all B/C flange shim thickness.	1	1	24FEB09	24FEB09	31	2,507.10			EM//TB =30hr ;				
AB-C MC Assembly															
2-4-7.01		lift (A-B) coil, along with fixture, onto anot	3	1	25FEB09	27FEB09	31	10,028.40			EM//TB =120hr ;				
2-4-7.02		Select a subset of monuments for initial alignm	1	1	02MAR09	02MAR09	44	1,971.20			EM//TB =00hr ; ZMET =16 ;				
2-4-7.03		Align set of monuments selected in 7.02.	1	1	03MAR09	03MAR09	44	1,971.20			EM//TB =00hr ; ZMET =16 ;				
2-4-7.04		Establish a set of global monuments	1	1	04MAR09	04MAR09	44	1,971.20			EM//TB =00hr ; ZMET =16 ;				
2-4-7.05		Mark nose shim locations & puck locations.	1	1	05MAR09	05MAR09	44	1,671.40			EM//TB =20hr ;				
2-4-7.06		Place initial set alumina shims (4-8) on Type-B	0	1	06MAR09	05MAR09	44	0.00			EM//TB =00hr ;				
2-4-7.08		Lower mating "C" coil into position.	1	1	06MAR09	06MAR09	44	3,342.80			EM//TB =40hr ;				
2-4-7.081		Perform alignment "C" coil tooling balls	1	1	09MAR09	09MAR09	44	1,971.20			EM//TB =00hr ; ZMET =16 ;				
2-4-7.09		Install jack screws & dial indicators	1	1	10MAR09	10MAR09	44	1,671.40			EM//TB =20hr ;				
2-4-7.10		Position coil within ±.002"	1	1	11MAR09	11MAR09	44	1,671.40			EM//TB =20hr ;				
2-4-7.11		Install alumina coated shims studs, & "wiggle"	1	1	12MAR09	12MAR09	44	2,507.10			EM//TB =30hr ;				
2-4-7.12		Torque50% of final value.	1	1	13MAR09	13MAR09	44	835.70			EM//TB =10hr ;				
2-4-7.13		Measure position of all monuments	2	1	16MAR09	17MAR09	44	2,956.80			EM//TB =00hr ; ZMET =24 ;				
2-4-7.14		Measure shim puck height	1	1	18MAR09	18MAR09	44	1,671.40			EM//TB =20hr ;				
2-4-7.15		remove puck locating rings & install all nose s	3	1	19MAR09	23MAR09	44	5,014.20			EM//TB =60hr ;				
2-4-7.16		"Lightly" tack weld nose flex shims	1	1	24MAR09	24MAR09	44	835.70			EM//TB =10hr ;				
2-4-7.17		remove "C" coil & place it on a separate fixtur	1	1	25MAR09	25MAR09	44	3,342.80			EM//TB =40hr ;				
2-4-7.18		Recheck part alignment & weld all Type-B flex s	3	1	26MAR09	30MAR09	44	5,913.60			EM//TB =00hr ; ZMET =48 ;				

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
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 ;		

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
2-5-6.34		Measure positions of all monuments	1	1	20FEB09	20FEB09	81	1,971.20					
2-5-6.35		Review with Back Office. INSTALL wing supports	2	1	23FEB09	24FEB09	81	7,285.20					
2-5-6.36		Identify, a set of monuments moved less than .0	0	1	25FEB09	24FEB09	81	0.00					
2-5-6.37		Fill all loose bushings with Stycast 2850FT	2	1	25FEB09	26FEB09	81	3,342.80					
2-5-6.38		Scan "B" flange (datum "E") of "B" coil,	1	1	27FEB09	27FEB09	81	1,971.20					
2-5-6.39		define all B/C flange shim thickness.	1	1	02MAR09	02MAR09	81	2,507.10					
AB-C MC Assembly													
2-5-7.01		lift (A-B) coil, along with fixture, onto anot	3	1	14APR09	16APR09	51	10,028.40					
2-5-7.02		Select a subset of monuments for initial alignm	1	1	17APR09	17APR09	51	1,971.20					
2-5-7.03		Align set of monuments selected in 7.02.	1	1	20APR09	20APR09	51	1,971.20					
2-5-7.04		Establish a set of global monuments	1	1	21APR09	21APR09	51	1,971.20					
2-5-7.05		Mark nose shim locations & puck locations.	1	1	22APR09	22APR09	51	1,671.40					
2-5-7.06		Place initial set alumina shims (4-8) on Type-B	0	1	23APR09	22APR09	51	0.00					
2-5-7.08		Lower mating "C" coil into position.	1	1	23APR09	23APR09	51	3,342.80					
2-5-7.081		Perform alignment "C" coil tooling balls	1	1	24APR09	24APR09	51	1,971.20					
2-5-7.09		Install jack screws & dial indicators	1	1	27APR09	27APR09	51	1,671.40					
2-5-7.10		Position coil within ±.002"	1	1	28APR09	28APR09	51	1,671.40					
2-5-7.11		Install alumina coated shims studs, & "wiggle"	1	1	29APR09	29APR09	51	2,507.10					
2-5-7.12		Torque50% of final value.	1	1	30APR09	30APR09	51	835.70					
2-5-7.13		Measure position of all monuments	2	1	01MAY09	04MAY09	51	2,956.80					
2-5-7.14		Measure shim puck height	1	1	05MAY09	05MAY09	51	1,671.40					
2-5-7.15		remove puck locating rings & install all nose s	3	1	06MAY09	08MAY09	51	5,014.20					
2-5-7.16		"Lightly" tack weld nose flex shims	1	1	11MAY09	11MAY09	51	835.70					
2-5-7.17		remove "C" coil & place it on a separate fixtur	1	1	12MAY09	12MAY09	51	3,342.80					
2-5-7.18		Recheck part alignment & weld all Type-B flex s	3	1	13MAY09	15MAY09	51	5,913.60					
2-5-7.19		After welding "B" coil nose shims recheck align	1	1	18MAY09	18MAY09	51	1,971.20					
2-5-7.20		Back office assessment of part after weld	2	1	19MAY09	20MAY09	51	3,942.40					
2-5-7.21		Measure "C" fiducials	1	1	19MAY09	19MAY09	52	1,971.20					
2-5-7.22		Weld all Type-C (A-flange) flex shims plasma sid	2	1	21MAY09	22MAY09	51	3,342.80					
2-5-7.23		After welding determine metrology acceptance	1	1	26MAY09	26MAY09	51	1,971.20					
2-5-7.24		Back office assessment	2	1	27MAY09	28MAY09	51	3,942.40					
2-5-7.25		Remove alumina shims for alignment mating	0	1	29MAY09	28MAY09	51	0.00					
2-5-7.07		Place unfilled shim bags in wing areas	1	1	29MAY09	29MAY09	51	1,671.40					
2-5-7.26		Lower mating "C" coil into position.	1	1	01JUN09	01JUN09	51	3,342.80					
2-5-7.261		alignment "C" coil tooling balls	1	1	02JUN09	02JUN09	51	1,971.20					
2-5-7.27		position coil accurately in x, y, & z directio	1	1	03JUN09	03JUN09	51	1,671.40					
2-5-7.28		Install alumina shims;studs,, & "wiggle"	1	1	04JUN09	04JUN09	51	2,507.10					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
2-5-7.29		Torque 50% of final value.	1	1	05JUN09	05JUN09	51	835.70					
2-5-7.30		Measure position of all monuments	2	1	08JUN09	09JUN09	51	2,956.80					
2-5-7.31		Adjust shims locally. Re-torque all studs 50%.	2	1	10JUN09	11JUN09	51	3,342.80					
2-5-7.32		Install bushing. Replace nut & tighten back 50%	3	1	12JUN09	16JUN09	51	5,014.20					
2-5-7.33		After super bolt tightening, measure position	1	1	17JUN09	17JUN09	51	2,956.80					
2-5-7.34		Tighten all bolts to final torque.	1	1	18JUN09	18JUN09	51	1,671.40					
2-5-7.35		After tightening hardware, meas position of monu	1	1	19JUN09	19JUN09	51	2,956.80					
2-5-7.36		Weld B / C nose region solenoid side	3	1	22JUN09	24JUN09	51	5,014.20					
2-5-7.37		Measure positions of all monuments	1	1	25JUN09	25JUN09	51	1,971.20					
2-5-7.38		Back office of above results & INSTALL wing supp	2	1	26JUN09	29JUN09	51	3,942.40					
2-5-7.39		Fill all lose bushings with Stycast 2850FT	2	1	30JUN09	01JUL09	51	3,342.80					
Stycast shim gaps & final measurements													
2-5-8.01		Fill all wing bladders & cure	2	1	02JUL09	06JUL09	51	3,342.80					
2-5-8.02		Inject stycast in all shim spaces	2	1	07JUL09	08JUL09	51	3,342.80					
2-5-10.0		Complete local service & interface details	10	1	09JUL09	22JUL09	51	0.00					
2-5-11.01		Measure tooling balls on all coils.	2	1	23JUL09	24JUL09	51	3,942.40					
2-5-11.02		Install or identify three primary fiducials	2	1	27JUL09	28JUL09	51	3,942.40					
2-5-11.03		Scan "B" flange Type-C coil & interfacing base	3	1	29JUL09	31JUL09	51	5,913.60					
2-5-11.04		Measure bolt length on all tension fasteners	1	1	03AUG09	03AUG09	51	1,671.40					
2-5-11.05		Perform Electrical Megger test on each coil	2	1	04AUG09	05AUG09	51	3,342.80					
2-5-11.06		Mark part for identification	0	1	06AUG09	05AUG09	51	0.00					
2-5-11.07		Install lift support beams	2	1	06AUG09	07AUG09	51	6,685.60					
2-5-11.08		Remove from stand & measure weight of	1	1	10AUG09	10AUG09	51	3,342.80					
2-5-11.09		Move to holding area.	2	1	11AUG09	12AUG09	51	6,685.60					
Station 2 MC subassy A6B6C6													
A-B MC Assembly													
2-6-6.01		Lower Type-A modular coil onto jacks	3	1	14APR09	16APR09	0	15,942.00					
2-6-6.02		Mark nose shim locations & puck locations.	0	1	17APR09	16APR09	0	0.00					
2-6-6.03		Place initial set of alumina shims (4-8) on Type	1	1	17APR09	17APR09	0	1,671.40					
2-6-6.05		Lower mating "B" coil into position.	1	1	20APR09	20APR09	0	3,342.80					
2-6-6.051		Perform alignment "B" coil tooling balls	1	1	21APR09	21APR09	0	1,971.20					
2-6-6.06		Install jack screws & dial indicators	1	1	22APR09	22APR09	0	1,671.40					
2-6-6.07		Position coil within ±.002" normal plane	1	1	23APR09	23APR09	0	5,314.00					
2-6-6.08		Install remaining alumina coated shims; studs,s	1	1	24APR09	24APR09	0	2,507.10					
2-6-6.09		torque 50% of final value & recheck.	1	1	27APR09	27APR09	0	835.70					
2-6-6.10		Measure position of all monuments	2	1	28APR09	29APR09	0	3,942.40					
2-6-6.11		Measure shim puck height	2	1	30APR09	01MAY09	0	2,507.10					
2-6-6.12		Remove puck locating rings & install all nose s	3	1	04MAY09	06MAY09	0	5,014.20					

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
2-6-8.02		Inject stycast in all shim spaces	2	1	28SEP09	29SEP09	0	3,342.80					
2-6-10.0		Complete local service & interface details	10	1	30SEP09	13OCT09	0	0.00					
2-6-11.01		Measure tooling balls on all coils.	2	1	14OCT09	15OCT09	0	4,057.60					
2-6-11.02		Install or identify three primary fiducials	2	1	16OCT09	19OCT09	0	4,057.60					
2-6-11.03		Scan "B" flange Type-C coil & interfacing base	3	1	20OCT09	22OCT09	0	6,086.40					
2-6-11.04		Measure bolt length on all tension fasteners	1	1	23OCT09	23OCT09	0	1,720.20					
2-6-11.05		Perform Electrical Megger test on each coil	2	1	26OCT09	27OCT09	0	3,440.40					
2-6-11.06		Mark part for identification	0	1	28OCT09	27OCT09	0	0.00					
2-6-11.07		Install lift support beams	2	1	28OCT09	29OCT09	0	6,880.80					
2-6-11.08		Remove from stand & measure weight of	1	1	30OCT09	30OCT09	0	3,440.40					
2-6-11.09		Move to holding area.	2	1	02NOV09	03NOV09	0	6,880.80					
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	50	10,696.96					
R1810-3113		Procure wire rope slings & 6 17ton shackles	8	1	24OCT08	04NOV08	50	19,901.20					
R1810-3151		Fab new platform legs	4	1	10OCT08*	15OCT08	50	22,575.44					
R1810-3153		Fab new platform safety rails	4	1	16OCT08*	21OCT08	50	29,105.44					
R1810-3109		Remove winding stations & enclosures	2	1	03NOV08	04NOV08	50	56,064.40					
R1810-3107		Test out station 3 equipment and procedures	30	1	24SEP08	04NOV08	50	49,682.00					
Station 3-Assemble Mod Coils and VVSA-FP#1													
Set-up and Prep													
3-1-1.01		transfer CAD models	7	1	27OCT08	04NOV08	50	13,798.40					
3-1-1.02		Install Station 3 site monuments	3	1	31OCT08	04NOV08	50	13,539.80					
3-1-1.021		Design, fabricate and calibrate photogrammetry	15	1	15OCT08	04NOV08	50	53,542.80					
3-1-1.03		Install floor mounted tracks and the VV base sup	5	1	16OCT08	22OCT08	50	19,519.00					
3-1-1.04		Install MCHP left support stand. Position to .0	3	1	23OCT08	27OCT08	50	10,927.80					
3-1-1.05		Install the MCHP right support stand;	3	1	28OCT08	30OCT08	50	5,014.20					
3-1-1.06		Install alignment brackets, jack screws dial ind	3	1	31OCT08	04NOV08	50	11,544.20					
3-1-1.07		Reconfirm Leica position	3	1	31OCT08	04NOV08	50	5,913.60					
3-0-PLAT.1		Install station 3 platforms FP#1(8 required)	10	1	22OCT08	04NOV08	50	23,399.60					
Pre-assemble LEFT MCHP													
3-1-2.01		Position left MCHP over left support	1	1	05NOV08	05NOV08	50	4,011.36					
3-1-2.02		Secure left MCHP to vertical support posts	1	1	06NOV08	06NOV08	50	2,005.68					
3-1-2.03		Measure all chosen monuments	2	1	07NOV08	10NOV08	50	3,942.40					
3-1-2.04		Measure the Type-A and Type-C end flanges while	2	1	11NOV08	12NOV08	50	4,730.88					
3-1-2.05		Allow time for the back office to review the me	2	1	13NOV08	14NOV08	50	4,730.88					
3-1-2.06		Mark nose shim locations & pucks	1	1	13NOV08	13NOV08	50	2,005.68					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
Pre-assemble RIGHT MCHP													
3-1-3.01		Move the right support cart in the far right lo	0	1	14NOV08	13NOV08	50	0.00			EM//TB =00hr ;		
3-1-3.02		Position right MCHP over right support	1	1	14NOV08	14NOV08	50	4,011.36			EM//TB =48hr ;		
3-1-3.03		Secure right MCHP to support base	1	1	17NOV08	17NOV08	50	2,005.68			EM//TB =24hr ;		
3-1-3.04		Measure the target monuments on right MCHP	2	1	18NOV08	19NOV08	50	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	50	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	50	9,461.76			EM//TB =00hr ; ZMET =77 ;		
3-1-3.07		Mark nose shim locations	1	1	24NOV08	24NOV08	50	2,005.68			EM//TB =24hr ;		
3-1-3.08		Define all outboard shim thicknesses	0	1	25NOV08	24NOV08	50	0.00			EM//TB =00hr ;		
Pre-assemble LEFT and RIGHT MCHP													
3-1-4.01		Place alumina shims (4-8) onleft side type A	1	1	25NOV08	25NOV08	50	1,671.40			EM//TB =20hr ;		
3-1-4.02		Temp lift right MCHP and move support cart	1	1	26NOV08	26NOV08	50	2,005.68			EM//TB =24hr ;		
3-1-4.03		Position right MCHP over right support	1	1	01DEC08	01DEC08	50	4,011.36			EM//TB =48hr ;		
3-1-4.04		Bring Air Loc wedgemeount leveler to take load	1	1	02DEC08	02DEC08	50	2,005.68			EM//TB =24hr ;		
3-1-4.05		Measure the target monuments on left MCHP with	2	1	03DEC08	04DEC08	50	4,730.88			EM//TB =00hr ; ZMET =38 ;		
3-1-4.06		Install temporary scaffolding to install flange	1	1	03DEC08	03DEC08	51	4,011.36			EM//TB =48hr ;		
3-1-4.07		Instl remaining alumina shims; instl nuts/studs	2	1	05DEC08	08DEC08	50	4,011.36			EM//TB =48hr ;		
3-1-4.08		Make a hand "wigggle" test (rotate on bolt) on a	2	1	09DEC08	10DEC08	50	4,011.36			EM//TB =48hr ;		
3-1-4.09		Tighten flange fasteners to 50%	1	1	11DEC08	11DEC08	50	2,005.68			EM//TB =24hr ;		
3-1-4.10		measure the position of all monuments	1	1	12DEC08	12DEC08	50	2,365.44			ZMET =19 ; EM//TB =00hr ;		
3-1-4.11		Measure the shim puck height (at a number of po	2	1	15DEC08	16DEC08	50	8,742.24			EM//TB =48hr ; ZMET =38 ;		
3-1-4.111		Fit and tack weld flex shims in place	3	1	17DEC08	19DEC08	50	6,017.04			EM//TB =72hr ;		
3-1-4.12		Unfasten all bolts, & roll right MCHP to right	2	1	22DEC08	23DEC08	50	4,011.36			EM//TB =48hr ;		
3-1-4.121		lay left MCHP onto 60 degree wedge for welding	2	1	02JAN09	05JAN09	50	8,022.72			EM//TB =96hr ;		
3-1-4.122		Measure the left MCHP fiducials	1	1	06JAN09	06JAN09	50	4,371.12			EM//TB =24hr ; ZMET =19 ;		
3-1-4.13		Recheck alignment & weld plasma side shims	2	1	07JAN09	08JAN09	50	7,285.20			EM//TB =40hr ; ZMET =32 ;		
3-1-4.14		After welding the left MCHP nose shims recheck	2	1	09JAN09	12JAN09	50	4,730.88			ZMET =38 ; EM//TB =00hr ;		
3-1-4.15		Time for back office assessment	2	1	13JAN09	14JAN09	50	4,730.88			EM//TB =00hr ; ZMET =38 ;		
3-1-4.151		Lift left MCHP & install on support stand	1	1	15JAN09	15JAN09	50	3,342.80			EM//TB =40hr ;		
3-1-4.152		Lay right MCHP on 60 deg wedge for welding	1	1	16JAN09	16JAN09	50	3,342.80			EM//TB =40hr ;		
3-1-4.16		Measure right MCHP fiducials establish ref	1	1	19JAN09	19JAN09	50	2,365.44			ZMET =19 ; EM//TB =00hr ;		
3-1-4.17		Weld right MCHP flex shims	2	1	20JAN09	21JAN09	50	7,285.20			EM//TB =40hr ; ZMET =32 ;		
3-1-4.18		After welding the right MCHP nose shims recheck	1	1	22JAN09	22JAN09	50	2,365.44			ZMET =19 ; EM//TB =00hr ;		
3-1-4.19		Time for back office assessment	2	1	23JAN09	26JAN09	50	4,730.88			EM//TB =00hr ; ZMET =38 ;		
RE-assemble LEFT and RIGHT MCHP													
3-1-5.01		Lift right MCHP and move support cart	2	1	27JAN09	28JAN09	50	8,022.72			EM//TB =96hr ;		
3-1-5.02		Position right MCHP over right support	2	1	29JAN09	30JAN09	50	8,022.72			EM//TB =96hr ;		
3-1-5.03		Bring Air Loc wedgemeount leveler to take load	1	1	02FEB09	02FEB09	50	2,005.68			EM//TB =24hr ;		

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY08												FY09												FY10												FY11												FY12											
3-1-5.04		Measure the target monuments on left MCHP with	2	1	03FEB09	04FEB09	50	4,730.88																																																												
3-1-5.05		Bond all inboard shim pucks to the right MCHP T	2	1	05FEB09	06FEB09	50	4,011.36																																																												
Install Laser Screen																																																																				
3-1-6.02		Place all laser screens	2	1	09FEB09	10FEB09	50	7,285.20																																																												
3-1-6.03		Turn each lasers on & measure each laser source	1	1	11FEB09	11FEB09	50	4,371.12																																																												
3-1-6.04		Print path on milar paper	0	1	12FEB09	11FEB09	50	0.00																																																												
3-1-6.05		Disengage the right MCHP & move to far right	1	1	12FEB09	12FEB09	50	2,005.68																																																												
3-1-6.06		Remove the left MCHP test laser path	2	1	13FEB09	16FEB09	50	21,469.60																																																												
3-1-6.07		Place left MCHP in temp location	0	1	17FEB09	16FEB09	50	0.00																																																												
Install Vacuum Vessel																																																																				
3-1-7.02		Install VV NBI port support stand.	2	1	17FEB09	18FEB09	50	4,011.36																																																												
3-1-7.03		Install VVSA to base support and make connection	1	1	19FEB09	19FEB09	50	2,005.68																																																												
3-1-7.04		take tooling ball readings and secure VVSA	2	1	20FEB09	23FEB09	50	4,011.36																																																												
3-1-7.05		Scan VV surface and compare data	3	1	24FEB09	26FEB09	50	7,096.32																																																												
Install RIGHT MCHP over VV																																																																				
3-1-8.01		Install any bumper protection components on the	1	1	27FEB09	27FEB09	50	1,002.84																																																												
3-1-8.03		Install MCHP lift fixture, disengage leveler	2	1	02MAR09	03MAR09	50	4,011.36																																																												
3-1-8.04		Re-install the right adjustor bar.	0	1	04MAR09	03MAR09	50	0.00																																																												
3-1-8.05		Move right MCHP over the VV	3	1	04MAR09	06MAR09	50	19,130.40																																																												
3-1-8.06		Position right MCHP over right support	2	1	09MAR09	10MAR09	50	8,022.72																																																												
3-1-8.07		Bring AirLoc Wedgemount leveler up to take load	1	1	11MAR09	11MAR09	50	2,005.68																																																												
3-1-8.08		Measure the target monuments on right MCHP	1	1	12MAR09	12MAR09	50	2,365.44																																																												
3-1-8.09		move MCHP to right 1/2"	0	1	13MAR09	12MAR09	50	0.00																																																												
Install LEFT MCHP over VV																																																																				
3-1-9.02		Move left MCHP over VV to within 1/2"	3	1	13MAR09	17MAR09	50	19,130.40																																																												
3-1-9.03		Using adjustor bar move right MCHP back	1	1	18MAR09	18MAR09	50	1,002.84																																																												
3-1-9.05		Position left MCHP over left support	1	1	19MAR09	19MAR09	50	4,011.36																																																												
3-1-9.06		Bring AirLoc Wedgemount leveler up to take load	1	1	20MAR09	20MAR09	50	1,002.84																																																												
3-1-9.061		Measure the target monuments on right MCHP	1	1	23MAR09	23MAR09	50	2,365.44																																																												
3-1-9.07		Remove laser screens to provide more flr space	1	1	24MAR09	24MAR09	50	2,005.68																																																												
3-1-9.08		Install temporary scaffolding to install flange	2	1	25MAR09	26MAR09	50	4,011.36																																																												
3-1-9.09		Install bolts and all outboard alumina shims.	2	1	27MAR09	30MAR09	50	4,011.36																																																												
3-1-9.1		Tighten flange fasteners to 50%	1	1	31MAR09	31MAR09	50	2,005.68																																																												
3-1-9.11		Make a hand "wobble" test (rotate on bolt)	2	1	01APR09	02APR09	50	4,011.36																																																												
3-1-9.12		Perform metrology measurements of all alignment	4	1	03APR09	08APR09	50	9,461.76																																																												
3-1-9.13		Perform position adjustments on left side MCHP	3	1	09APR09	13APR09	50	6,017.04																																																												
3-1-9.14		Remove SISSCO actuator from left MCHP.	0	1	14APR09	13APR09	50	0.00																																																												
3-1-9.15		Machine and install bushings	3	1	14APR09	16APR09	50	6,017.04																																																												

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY08												FY09												FY10												FY11												FY12											
3-1-9.16		Tighten nuts 100%. Re-verify adequate MCHP ali	2	1	17APR09	20APR09	50	8,742.24													EM/TB =48hr ; ZMET =38 ;																																															
Weld inboard shims & fill bushing gaps																																																																				
3-1-10.01		Weld inboard shims solenoid side	4	1	21APR09	24APR09	50	20,618.88													EM/TB =96hr ; 41=02\$K ; ZMET =77 ;																																															
3-1-10.02		Measure the positions of all monuments	2	1	27APR09	28APR09	50	4,730.88													ZMET =38 ; EM/TB =00hr ;																																															
3-1-10.03		Fill all lose bushings with Stycast 2850FT	2	1	29APR09	30APR09	50	4,011.36													EM/TB =48hr ;																																															
3-1-10.04		Measure the monuments on all coils.	3	1	01MAY09	05MAY09	50	7,096.32													ZMET =58 ; EM/TB =00hr ;																																															
VVSA attachment to MC's																																																																				
3-1-11.01		Attach permanent VV supports to Type A MC	2	1	06MAY09	07MAY09	50	8,022.72													EM/TB =96hr ;																																															
3-1-11.02		Attach temp VV supports to Type B MC	2	1	08MAY09	11MAY09	50	8,022.72													EM/TB =96hr ;																																															
3-1-11.03		Disconnect base support and transfer load to VV	1	1	12MAY09	12MAY09	50	4,011.36													EM/TB =48hr ;																																															
3-1-11.04		Install VV lateral supports and align VVSA	2	1	13MAY09	14MAY09	50	8,022.72													EM/TB =96hr ;																																															
3-1-11.05		Prepare VVSA for transport. Install blocking	2	1	15MAY09	18MAY09	50	8,022.72													EM/TB =96hr ;																																															
Transfer to Station 5																																																																				
3-1-12.01		Instl rigging to MCWF transfer to support frame	2	1	19MAY09	20MAY09	50	8,022.72													EM/TB =96hr ;																																															
3-1-12.02		Transfer to Station 5 located in NCSX TC	2	1	21MAY09	22MAY09	50	8,022.72													EM/TB =96hr ;																																															
S31-10.02M	2	Complete 1st MC-VV Assy (Sta 3)	0	1		22MAY09	50	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													EM/TB =280hr ; 41=10\$K ;																																															
Set-up and Prep																																																																				
3-2-1.04		Install MCHP left support stand. Position to .0	3	1	23MAR09	25MAR09	98	10,927.80													zmet=48;em//tb=60																																															
3-2-1.05		Install the MCHP right support stand;	3	1	26MAR09	30MAR09	98	5,014.20													em//tb=60																																															
Pre-assemble LEFT MCHP																																																																				
3-2-2.01		Position left MCHP over left support	1	1	31MAR09	31MAR09	98	3,342.80													EM/TB =40hr ;																																															
3-2-2.02		Secure left MCHP to vertical support posts	1	1	01APR09	01APR09	98	1,671.40													EM/TB =20hr ;																																															
3-2-2.03		Measure all chosen monuments	2	1	02APR09	03APR09	98	3,942.40													EM/TB =00hr ; ZMET =32 ;																																															
3-2-2.04		Measure the Type-A and Type-C end flanges while	2	1	06APR09	07APR09	98	3,942.40													EM/TB =00hr ; ZMET =32 ;																																															
3-2-2.05		Allow time for the back office to review the me	2	1	08APR09	09APR09	98	3,942.40													EM/TB =00hr ; ZMET =32 ;																																															
3-2-2.06		Mark nose shim locations & pucks	1	1	08APR09	08APR09	98	1,671.40													EM/TB =20hr ;																																															
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													EM/TB =00hr ;																																															
3-2-3.02		Position right MCHP over right support	1	1	25JUN09	25JUN09	44	3,342.80													EM/TB =40hr ;																																															
3-2-3.03		Secure right MCHP to support base	1	1	26JUN09	26JUN09	44	1,671.40													EM/TB =20hr ;																																															
3-2-3.04		Measure the target monuments on right MCHP	2	1	29JUN09	30JUN09	44	3,942.40													ZMET =32 ; EM/TB =00hr ;																																															
3-2-3.05		Measure the Type-A and Type-C end flanges while	2	1	01JUL09	02JUL09	44	3,942.40													ZMET =32 ; EM/TB =00hr ;																																															
3-2-3.06		Allow time for the back office to review the me	4	1	06JUL09	09JUL09	44	7,884.80													EM/TB =00hr ; ZMET =64 ;																																															
3-2-3.07		Mark nose shim locations	1	1	06JUL09	06JUL09	44	1,671.40													EM/TB =20hr ;																																															
3-2-3.08		Define all outboard shim thicknesses	0	1	07JUL09	06JUL09	44	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	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
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						EM/TB =20hr ;
3-2-4.02		Temp lift right MCHP and move support cart	1	1	08JUL09	08JUL09	44	1,671.40						EM/TB =20hr ;
3-2-4.03		Position right MCHP over right support	1	1	09JUL09	09JUL09	44	3,342.80						EM/TB =40hr ;
3-2-4.04		Bring Air Loc wedgemeount leveler to take load	1	1	10JUL09	10JUL09	44	1,671.40						EM/TB =20hr ;
3-2-4.05		Measure the target monuments on left MCHP with	2	1	13JUL09	14JUL09	44	3,942.40						EM/TB =00hr ; ZMET =32 ;
3-2-4.06		Install temporary scaffolding to install flange	1	1	13JUL09	13JUL09	45	3,342.80						EM/TB =40hr ;
3-2-4.07		Instl remaining alumina shims; instl nuts/studs	2	1	15JUL09	16JUL09	44	3,342.80						EM/TB =40hr ;
3-2-4.08		Make a hand "wigggle" test (rotate on bolt) on a	2	1	17JUL09	20JUL09	44	3,342.80						EM/TB =40hr ;
3-2-4.09		Tighten flange fasteners to 50%	1	1	21JUL09	21JUL09	44	1,671.40						EM/TB =20hr ;
3-2-4.10		measure the position of all monuments	1	1	22JUL09	22JUL09	44	1,971.20						ZMET =16 ; EM/TB =00hr ;
3-2-4.11		Measure the shim puck height (at a number of po	2	1	23JUL09	24JUL09	44	7,285.20						EM/TB =40hr ; ZMET =32 ;
3-2-4.111		Fit and tack weld flex shims in place	3	1	27JUL09	29JUL09	44	5,014.20						EM/TB =60hr ;
3-2-4.12		Unfasten all bolts, & roll right MCHP to right	2	1	30JUL09	31JUL09	44	3,342.80						EM/TB =40hr ;
3-2-4.121		lay left MCHP onto 60 degree wedge for welding	2	1	03AUG09	04AUG09	44	6,685.60						EM/TB =80hr ;
3-2-4.122		Measure the left MCHP fiducials	1	1	05AUG09	05AUG09	44	3,642.60						EM/TB =20hr ; ZMET =16 ;
3-2-4.13		Recheck alignment & weld plasma side shims	2	1	06AUG09	07AUG09	44	7,285.20						EM/TB =40hr ; ZMET =32 ;
3-2-4.14		After welding the left MCHP nose shims recheck	2	1	10AUG09	11AUG09	44	3,942.40						ZMET =32 ; EM/TB =00hr ;
3-2-4.15		Time for back office assessment	2	1	12AUG09	13AUG09	44	3,942.40						EM/TB =00hr ; ZMET =32 ;
3-2-4.151		Lift left MCHP & install on support stand	1	1	14AUG09	14AUG09	44	3,342.80						EM/TB =40hr ;
3-2-4.152		Lay right MCHP on 60 deg wedge for welding	1	1	17AUG09	17AUG09	44	3,342.80						EM/TB =40hr ;
3-2-4.16		Measure right MCHP fiducials establish ref	1	1	18AUG09	18AUG09	44	1,971.20						ZMET =16 ; EM/TB =00hr ;
3-2-4.17		Weld right MCHP flex shims	2	1	19AUG09	20AUG09	44	7,285.20						EM/TB =40hr ; ZMET =32 ;
3-2-4.18		After welding the right MCHP nose shims recheck	1	1	21AUG09	21AUG09	44	1,971.20						ZMET =16 ; EM/TB =00hr ;
3-2-4.19		Time for back office assessment	2	1	24AUG09	25AUG09	44	3,942.40						EM/TB =00hr ; ZMET =32 ;
RE-assemble LEFT and RIGHT MCHP														
3-2-5.01		Lift right MCHP and move support cart	2	1	26AUG09	27AUG09	44	6,685.60						EM/TB =80hr ;
3-2-5.02		Position right MCHP over right support	2	1	28AUG09	31AUG09	44	6,685.60						EM/TB =80hr ;
3-2-5.03		Bring Air Loc wedgemeount leveler to take load	1	1	01SEP09	01SEP09	44	1,671.40						EM/TB =20hr ;
3-2-5.04		Measure the target monuments on left MCHP with	2	1	02SEP09	03SEP09	44	3,942.40						ZMET =32 ; EM/TB =00hr ;
3-2-5.05		Bond all inboard shim pucks to the right MCHP T	2	1	04SEP09	08SEP09	44	3,342.80						EM/TB =40hr ;
Install Laser Screen														
3-2-6.02		Place all laser screens	2	1	09SEP09	10SEP09	44	7,285.20						EM/TB =40hr ; ZMET =32 ;
3-2-6.03		Turn each lasers on & measure each laser source	1	1	11SEP09	11SEP09	44	3,642.60						EM/TB =20hr ; ZMET =16 ;
3-2-6.04		Print path on milar paper	0	1	14SEP09	11SEP09	44	0.00						EM/TB =00hr ;
3-2-6.05		Disengage the right MCHP & move to far right	1	1	14SEP09	14SEP09	44	1,671.40						EM/TB =20hr ;
3-2-6.06		Remove the left MCHP test laser path	2	1	15SEP09	16SEP09	44	21,469.60						EM/TB =80hr ; ZMET =120 ;
3-2-6.07		Place left MCHP in temp location	0	1	17SEP09	16SEP09	44	0.00						EM/TB =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	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
Install Vacuum Vessel														
3-2-7.02		Install VV NBI port support stand.	2	1	17SEP09	18SEP09	44	3,342.80				EM//TB =40hr ;		
3-2-7.03		Install VVSA to base support and make connection	1	1	21SEP09	21SEP09	44	1,671.40				EM//TB =20hr ;		
3-2-7.04		take tooling ball readings and secure VVSA	2	1	22SEP09	23SEP09	44	3,342.80				EM//TB =40hr ;		
3-2-7.05		Scan VV surface and compare data	3	1	24SEP09	28SEP09	44	5,913.60				ZMET =48 ; EM//TB =00hr ;		
Install RIGHT MCHP over VV														
3-2-8.01		Install any bumper protection components on the	1	1	29SEP09	29SEP09	44	835.70				EM//TB =10hr ;		
3-2-8.03		Install MCHP lift fixture, disengage leveler	2	1	30SEP09	01OCT09	44	3,391.60				EM//TB =40hr ;		
3-2-8.04		Re-install the right adjustor bar.	0	1	02OCT09	01OCT09	44	0.00				EM//TB =00hr ;		
3-2-8.05		Move right MCHP over the VV	3	1	02OCT09	06OCT09	44	16,407.60				EM//TB =120hr ; ZMET =48 ;		
3-2-8.06		Position right MCHP over right support	2	1	07OCT09	08OCT09	44	6,880.80				EM//TB =80hr ;		
3-2-8.07		Bring AirLoc Wedgemount leveler up to take load	1	1	09OCT09	09OCT09	44	1,720.20				EM//TB =20hr ;		
3-2-8.08		Measure the target monuments on right MCHP	1	1	12OCT09	12OCT09	44	2,028.80				ZMET =16 ; EM//TB =00hr ;		
3-2-8.09		move MCHP to right 1/2"	0	1	13OCT09	12OCT09	44	0.00				EM//TB =00hr ;		
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				EM//TB =120hr ; ZMET =48 ;		
3-2-9.03		Using adjustor bar move right MCHP back	1	1	16OCT09	16OCT09	44	860.10				EM//TB =10hr ;		
3-2-9.05		Position left MCHP over left support	1	1	19OCT09	19OCT09	44	3,440.40				EM//TB =40hr ;		
3-2-9.06		Bring AirLoc Wedgemount leveler up to take load	1	1	20OCT09	20OCT09	44	860.10				EM//TB =10hr ;		
3-2-9.061		Measure the target monuments on right MCHP	1	1	21OCT09	21OCT09	44	2,028.80				ZMET =16 ; EM//TB =00hr ;		
3-2-9.07		Remove laser screens to provide more flr space	1	1	22OCT09	22OCT09	44	1,720.20				EM//TB =20hr ;		
3-2-9.08		Install temporary scaffolding to install flange	2	1	23OCT09	26OCT09	44	3,440.40				EM//TB =40hr ;		
3-2-9.09		Install bolts and all outboard alumina shims.	2	1	27OCT09	28OCT09	44	3,440.40				EM//TB =40hr ;		
3-2-9.1		Tighten flange fasteners to 50%	1	1	29OCT09	29OCT09	44	1,720.20				EM//TB =20hr ;		
3-2-9.11		Make a hand "wiggle" test (rotate on bolt)	2	1	30OCT09	02NOV09	44	3,440.40				EM//TB =40hr ;		
3-2-9.12		Perform metrology measurements of all alignment	4	1	03NOV09	06NOV09	44	8,115.20				ZMET =64 ; EM//TB =00hr ;		
3-2-9.13		Perform position adjustments on left side MCHP	3	1	09NOV09	11NOV09	44	5,160.60				EM//TB =60hr ;		
3-2-9.14		Remove SISCO actuator from left MCHP.	0	1	12NOV09	11NOV09	44	0.00				EM//TB =00hr ;		
3-2-9.15		Machine and install bushings	3	1	12NOV09	16NOV09	44	5,160.60				EM//TB =60hr ;		
3-2-9.16		Tighten nuts 100%. Re-verify adequate MCHP ali	2	1	17NOV09	18NOV09	44	7,498.00				EM//TB =40hr ; ZMET =32 ;		
Weld inboard shims & fill bushing gaps														
3-2-10.01		Weld inboard shims solenoid side	4	1	19NOV09	24NOV09	44	14,996.00				EM//TB =80hr ; ZMET =64 ;		
3-2-10.02		Measure the positions of all monuments	2	1	25NOV09	30NOV09	44	4,057.60				ZMET =32 ; EM//TB =00hr ;		
3-2-10.03		Fill all lose bushings with Stycast 2850FT	2	1	01DEC09	02DEC09	44	3,440.40				EM//TB =40hr ;		
3-2-10.04		Measure the monuments on all coils.	3	1	03DEC09	07DEC09	44	6,086.40				ZMET =48 ; EM//TB =00hr ;		
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				EM//TB =80hr ;		
3-2-11.02		Attach temp VV supports to Type B MC	2	1	10DEC09	11DEC09	44	6,880.80				EM//TB =80hr ;		

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
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					
3-3-2.06		Mark nose shim locations & pucks	1	1	21AUG09	21AUG09	51	1,671.40					
Pre-assemble RIGHT MCHP													
3-3-3.01		Move the right support cart in the far right lo	0	1	24AUG09	21AUG09	51	0.00					
3-3-3.02		Position right MCHP over right support	1	1	04NOV09	04NOV09	0	3,440.40					
3-3-3.03		Secure right MCHP to support base	1	1	05NOV09	05NOV09	0	1,720.20					
3-3-3.04		Measure the target monuments on right MCHP	2	1	06NOV09	09NOV09	0	4,057.60					
3-3-3.05		Measure the Type-A and Type-C end flanges while	2	1	10NOV09	11NOV09	0	4,057.60					
3-3-3.06		Allow time for the back office to review the me	4	1	12NOV09	17NOV09	0	8,115.20					
3-3-3.07		Mark nose shim locations	1	1	12NOV09	12NOV09	0	1,720.20					
3-3-3.08		Define all outboard shim thicknesses	0	1	13NOV09	12NOV09	0	0.00					
Pre-assemble LEFT and RIGHT MCHP													
3-3-4.01		Place alumina shims (4-8) onleft side type A	1	1	13NOV09	13NOV09	0	1,720.20					
3-3-4.02		Temp lift right MCHP and move support cart	1	1	16NOV09	16NOV09	0	1,720.20					
3-3-4.03		Position right MCHP over right support	1	1	17NOV09	17NOV09	0	3,440.40					
3-3-4.04		Bring Air Loc wedgemeount leveler to take load	1	1	18NOV09	18NOV09	0	1,720.20					
3-3-4.05		Measure the target monuments on left MCHP with	2	1	19NOV09	20NOV09	0	4,057.60					
3-3-4.06		Install temporary scaffolding to install flange	1	1	19NOV09	19NOV09	1	3,440.40					
3-3-4.07		Instl remaining alumina shims; instl nuts/studs	2	1	23NOV09	24NOV09	0	3,440.40					
3-3-4.08		Make a hand "wobble" test (rotate on bolt) on a	2	1	25NOV09	30NOV09	0	3,440.40					
3-3-4.09		Tighten flange fasteners to 50%	1	1	01DEC09	01DEC09	0	1,720.20					
3-3-4.10		measure the position of all monuments	1	1	02DEC09	02DEC09	0	2,028.80					
3-3-4.11		Measure the shim puck height (at a number of po	2	1	03DEC09	04DEC09	0	7,498.00					
3-3-4.111		Fit and tack weld flex shims in place	3	1	07DEC09	09DEC09	0	5,160.60					

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
3-3-8.09		move MCHP to right 1/2"	0	2	15FEB10	12FEB10	0	0.00						EM//TB =00hr ;
Install LEFT MCHP over VV														
3-3-9.02		Move left MCHP over VV to within 1/2"	1	2	15FEB10	15FEB10	0	16,407.60						EM//TB =120hr ; ZMET =48 ;
3-3-9.03		Using adjustor bar move right MCHP back	1	2	16FEB10	16FEB10	0	860.10						EM//TB =10hr ;
3-3-9.05		Position left MCHP over left support	1	2	17FEB10	17FEB10	0	3,440.40						EM//TB =40hr ;
3-3-9.06		Bring AirLoc Wedgemount leveler up to take load	1	2	18FEB10	18FEB10	0	860.10						EM//TB =10hr ;
3-3-9.061		Measure the target monuments on right MCHP	1	2	19FEB10	19FEB10	0	2,028.80						ZMET =16 ; EM//TB =00hr ;
3-3-9.07		Remove laser screens to provide more flr space	1	2	22FEB10	22FEB10	0	1,720.20						EM//TB =20hr ;
3-3-9.08		Install temporary scaffolding to install flange	1	2	23FEB10	23FEB10	0	3,440.40						EM//TB =40hr ;
3-3-9.09		Install bolts and all outboard alumina shims.	1	2	24FEB10	24FEB10	0	3,440.40						EM//TB =40hr ;
3-3-9.1		Tighten flange fasteners to 50%	1	2	25FEB10	25FEB10	0	1,720.20						EM//TB =20hr ;
3-3-9.11		Make a hand "wiggle" test (rotate on bolt)	1	2	26FEB10	26FEB10	0	3,440.40						EM//TB =40hr ;
3-3-9.12		Perform metrology measurements of all alignment	2	2	01MAR10	02MAR10	0	8,115.20						ZMET =64 ; EM//TB =00hr ;
3-3-9.13		Perform position adjustments on left side MCHP	1	2	03MAR10	03MAR10	0	5,160.60						EM//TB =60hr ;
3-3-9.14		Remove SISCO actuator from left MCHP.	0	2	04MAR10	03MAR10	0	0.00						EM//TB =00hr ;
3-3-9.15		Machine and install bushings	1	2	04MAR10	04MAR10	0	5,160.60						EM//TB =60hr ;
3-3-9.16		Tighten nuts 100%. Re-verify adequate MCHP ali	1	2	05MAR10	05MAR10	0	7,498.00						EM//TB =40hr ; ZMET =32 ;
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 ; 41=02\$K ; 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 ;

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
R1810-5100		Bolt on 2 port Extensions needed for Diag	1	1	22MAY09*	22MAY09	50	1,337.12					
R1810-5101		MTM NCR hardware re-purchase	100	1	20NOV08*	21APR09	50	84,890.00					
R1810-5112		Weld wire & welding supplies	25	1	18MAR09*	21APR09	50	2,612.00					
R1810-5104		Misc for tooling	10	1	11MAY09*	22MAY09	50	19,590.00					
R1810-5201		Procure 4 25ton chainfalls	65	1	23FEB09	22MAY09	50	58,770.00					
R1810-5202		Load test heavy slings	65	1	23FEB09*	22MAY09	50	3,918.00					
R1810-5203		Modify station 3 platforms for station 5	65	1	23FEB09*	22MAY09	50	25,700.40					
R1810-5204		Portable platforms for station 5	65	1	23FEB09*	22MAY09	50	3,918.00					
R1810-5106		Testout Sta 5 equipt & procedures	5	1	22APR09	28APR09	50	13,371.20					
R1810-5107		Check 3 sled interfaces adjust holes	12	1	29APR09	14MAY09	50	32,090.88					
R1810-5108		Fixtures installed-final metrology	6	1	15MAY09	22MAY09	50	8,022.72					
Station 5- Final FP Assy -FP#1 (in NCSX TC)													
Pre-Installation setup													
R1810-5109		Begin Station 5 Operations	0	1		22MAY09	50	0.00					
5-1-2.01		Install period support fixture	5	1	26MAY09	01JUN09	50	10,028.40					
5-1-2.02		Temporarily position/support lower trim coils t	1	1	02JUN09	02JUN09	50	2,005.68					
5-1-2.03		Install FPA on support stand. Use leveler pad	2	1	03JUN09	04JUN09	50	4,011.36					
5-1-2.04		Install external working platforms	3	1	05JUN09	09JUN09	50	6,017.04					
5-1-2.045		Fab internal VV working platforms	20	1	12MAY09	09JUN09	50	20,056.80					
5-1-2.05		Install internal VV working platforms	3	1	10JUN09	12JUN09	50	8,629.04					
VV Port Installation													
5-1-3.01		Install the domes (left and right side), insert	2	1	15JUN09	16JUN09	50	8,692.96					
5-1-3.02		Install small dome ports and remaining circular	24	1	17JUN09	21JUL09	50	87,422.40					
5-1-3.03		Leak check each port immediately after it is we	24	1	24JUN09	28JUL09	50	40,113.60					
Install Port Boots													
5-1-4.01		Install boots on all ports except for port 4's	12	1	14JUL09	29JUL09	50	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	50	12,034.08					
5-1-5.011		Run thermocouple and strain gage lines	2	1	07AUG09	10AUG09	50	3,342.80					
5-1-5.02		Instll MC feet leveling struct	1	1	11AUG09	11AUG09	50	2,005.68					
5-1-5.03		Install outward facing TF supports	1	1	12AUG09	12AUG09	50	1,002.84					
5-1-5.04		Bolt in place Port 12 trim coil brackets	1	1	13AUG09	13AUG09	50	2,005.68					
5-1-5.05		Bolt part of Port 12 trim coil suprts	1	1	14AUG09	14AUG09	50	2,005.68					
5-1-5.06		Position two TF coils over the "C" MC.	2	1	17AUG09	18AUG09	50	4,011.36					
5-1-5.07		Move TF coil over the right "A" MC.	1	1	19AUG09	19AUG09	50	2,005.68					
5-1-5.08		Install the Type-A TF coil support brackets	2	1	20AUG09	21AUG09	50	4,011.36					
5-1-5.09		Instl local MC lead stem right Type-B MC	2	1	24AUG09	25AUG09	50	3,342.80					
5-1-5.1		Install TF coils left side of Period assembly	6	1	26AUG09	02SEP09	50	12,034.08					

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
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					
5-2-2.02		Temporarily position/support lower trim coils t	1	1	13JAN10	13JAN10	44	1,720.20					
5-2-2.03		Install FPA on support stand. Use leveler pad	2	1	14JAN10	15JAN10	44	3,440.40					
5-2-2.04		Install external working platforms	3	1	18JAN10	20JAN10	44	5,160.60					
5-2-2.05		Install internal VV working platforms	3	1	21JAN10	25JAN10	44	18,530.60					
VV Port Installation													
5-2-3.01		Install the domes (left and right side), insert	2	1	26JAN10	27JAN10	44	7,498.00					
5-2-3.02		Install small dome ports and remaining circular	24	1	28JAN10	02MAR10	44	89,976.00					
5-2-3.03		Leak check each port immediately after it is we	24	1	04FEB10	09MAR10	44	41,284.80					
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					
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					
5-2-5.011		Run thermocouple and strain gage lines	2	1	19MAR10	22MAR10	44	3,440.40					
5-2-5.02		Instll MC feet leveling struct	1	1	23MAR10	23MAR10	44	1,720.20					
5-2-5.03		Install outward facing TF supports	1	1	24MAR10	24MAR10	44	860.10					
5-2-5.04		Bolt in place Port 12 trim coil brackets	1	1	25MAR10	25MAR10	44	1,720.20					
5-2-5.05		Bolt part of Port 12 trim coil suprts	1	1	26MAR10	26MAR10	44	1,720.20					
5-2-5.06		Position two TF coils over the "C" MC.	2	1	29MAR10	30MAR10	44	3,440.40					
5-2-5.07		Move TF coil over the right "A" MC.	1	1	31MAR10	31MAR10	44	1,720.20					
5-2-5.08		Install the Type-A TF coil support brackets	2	1	01APR10	02APR10	44	3,440.40					
5-2-5.09		Instl local MC lead stem right Type-B MC	2	1	05APR10	06APR10	44	3,440.40					
5-2-5.1		Install TF coils left side of Period assembly	6	1	07APR10	14APR10	44	10,321.20					
5-2-5.11		Install remaining TF/trim support brackets	2	1	15APR10	16APR10	44	3,440.40					
5-2-5.12		Bolt port 4 trim coil to trim coil brackets	2	1	19APR10	20APR10	44	3,440.40					
5-2-5.13		Bolt port 4 trim coil to trim coil brackets	4	1	21APR10	26APR10	44	6,880.80					
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					
5-2-6.02		Install the magnet systems support structure	1	2	28APR10	28APR10	44	16,435.60					
5-2-6.03		Attach channel struct on magnet struct	1	2	29APR10	29APR10	44	3,440.40					
5-2-6.04		Attach additional support structure struts	1	2	30APR10	30APR10	44	3,440.40					
5-2-6.05		MC leads will be supported off magnet struct	1	2	03MAY10	03MAY10	44	7,451.40					
5-2-6.06		Metrology measurements of each trim coil	2	2	04MAY10	05MAY10	44	14,996.00					
5-2-6.07		Install I&C into junction boxes design TBD	2	1	06MAY10	07MAY10	71	7,451.40					
MC coolant connections & services runs													
5-2-7.01		Install top and bottom MC coolant headers. .	1	2	06MAY10	06MAY10	44	10,891.80					
5-2-11.08		Check manifolds (pressure, flow, etc.	3	2	07MAY10	11MAY10	69	15,301.40					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
5-2-7.02		Bring MC strain gage & TC lines through	1	2	07MAY10	07MAY10	44	6,114.40					
5-2-7.03		Grounding connections	1	2	10MAY10	10MAY10	44	6,114.40					
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					
5-2-9.01		Tack weld the left and right port 4's.	1	2	13MAY10	13MAY10	44	6,880.80					
5-2-9.02		Install boots on both port 4's.	1	2	14MAY10	14MAY10	44	6,880.80					
5-2-10.01		Install Rogowski coils on end of VV left side	3	2	17MAY10	19MAY10	44	33,721.12					
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					
5-2-11.02		Adjust VV supports to secure VV in place.	2	2	21MAY10	24MAY10	44	14,996.00					
5-2-11.03		Install 3 primary fiducials for positioning	1	2	25MAY10	25MAY10	44	4,057.60					
5-2-11.04		Make a final measurement of all fiducials	2	2	26MAY10	27MAY10	44	10,144.00					
5-2-11.05		Acceptance test and Back Office approve data	2	2	28MAY10	01JUN10	44	0.00					
5-2-11.06		Check Assembly (bolts, etc)	3	2	02JUN10	04JUN10	44	15,301.40					
5-2-11.07		Check Diagnostics (loops, thermocouples)	1	2	07JUN10	07JUN10	44	6,120.56					
5-2-11.09		Check 6 modular coils (voltage etc)	2	2	08JUN10	09JUN10	44	9,180.84					
5-2-11.1		Check trim coils (voltage etc)	2	2	10JUN10	11JUN10	44	9,180.84					
5-2-11.11		Check TF coils (voltage etc)	2	2	14JUN10	15JUN10	44	6,120.56					
5-2-12.01		Install crane rigging	1	2	16JUN10	16JUN10	44	6,880.80					
5-2-12.02		Remove platforms	1	2	17JUN10	17JUN10	44	3,440.40					
5-2-12.03		Weigh&transfer FPA to Station 6 in NCSX tc.	1	2	18JUN10	18JUN10	44	12,228.80					
S52-14.03M	2	Complete 2nd Field Period Assy. (Sta.5)	0	2		18JUN10	44	0.00					
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					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY					
									FY08	FY09	FY10	FY11	FY12	
5-3-5.011		Run thermocouple and strain gage lines	1	2	24MAY10	24MAY10	0	3,440.40				EM/TB =40hr ;		
5-3-5.02		Instll MC feet leveling struct	1	2	25MAY10	25MAY10	0	1,720.20				EM/TB =20hr ;		
5-3-5.03		Install outward facing TF supports	1	2	26MAY10	26MAY10	0	860.10				EM/TB =10hr ;		
5-3-5.04		Bolt in place Port 12 trim coil brackets	1	2	27MAY10	27MAY10	0	1,720.20				EM/TB =20hr ;		
5-3-5.05		Bolt part of Port 12 trim coil suprts	1	2	28MAY10	28MAY10	0	1,720.20				EM/TB =20hr ;		
5-3-5.06		Position two TF coils over the "C" MC.	1	2	01JUN10	01JUN10	0	3,440.40				EM/TB =40hr ;		
5-3-5.07		Move TF coil over the right "A" MC.	1	2	02JUN10	02JUN10	0	1,720.20				EM/TB =20hr ;		
5-3-5.08		Install the Type-A TF coil support brackets	1	2	03JUN10	03JUN10	0	3,440.40				EM/TB =40hr ;		
5-3-5.09		Instl local MC lead stem right Type-B MC	1	2	04JUN10	04JUN10	0	3,440.40				EM/TB =40hr ;		
5-3-5.1		Install TF coils left side of Period assembly	3	2	07JUN10	09JUN10	0	10,321.20				EM/TB =120hr ;		
5-3-5.11		Install remaining TF/trim support brackets	1	2	10JUN10	10JUN10	0	3,440.40				EM/TB =40hr ;		
5-3-5.12		Bolt port 4 trim coil to trim coil brackets	1	2	11JUN10	11JUN10	0	3,440.40				EM/TB =40hr ;		
5-3-5.13		Bolt port 4 trim coil to trim coil brackets	2	2	14JUN10	15JUN10	0	6,880.80				EM/TB =80hr ;		
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				EM/TB =20hr ;		
5-3-6.02		Install the magnet systems support structure	1	2	17JUN10	17JUN10	0	6,114.40				41=02\$K ; EM/TB =40hr ;		
5-3-6.03		Attach channel struct on magnet struct	1	2	18JUN10	18JUN10	0	3,440.40				EM/TB =40hr ;		
5-3-6.04		Attach additional support structure struts	1	2	21JUN10	21JUN10	0	3,440.40				EM/TB =40hr ;		
5-3-6.05		MC leads will be supported off magnet struct	1	2	22JUN10	22JUN10	0	7,451.40				41=03\$K ; EM/TB =40hr ;		
5-3-6.06		Metrology measurements of each trim coil	2	2	23JUN10	24JUN10	0	14,996.00				EM/TB =80hr ; ZMET =64 ;		
5-3-6.07		Install I&C into junction boxes design TBD	2	1	25JUN10	28JUN10	29	7,451.40				EM/TB =40hr ; 41=03\$K ;		
MC coolant connections & services runs														
5-3-7.01		Install top and bottom MC coolant headers. .	1	2	25JUN10	25JUN10	0	10,891.80				41=03\$K ; EM/TB =80hr ;		
5-3-7.02		Bring MC strain gage & TC lines through	1	2	28JUN10	28JUN10	0	6,114.40				41=02\$K ; EM/TB =40hr ;		
5-3-7.03		Grounding connections	1	2	29JUN10	29JUN10	0	6,114.40				41=02\$K ; EM/TB =40hr ;		
5-3-11.08		Check manifolds (pressure, flow, etc.	3	2	28JUN10	30JUN10	27	15,301.40				EM/TB =100hr ; EM/EM =40hr ;		
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				ZMET =140 ; 41=05\$K ; EM/TB =200hr ;		
5-3-9.01		Tack weld the left and right port 4's.	1	2	02JUL10	02JUL10	0	6,880.80				EM/TB =80hr ;		
5-3-9.02		Install boots on both port 4's.	1	2	06JUL10	06JUL10	0	6,880.80				EM/TB =80hr ;		
5-3-10.01		Install Rogowski coils on end of VV left side	3	2	07JUL10	09JUL10	0	33,721.12				EM/EM =15hr ; EM/SM =144hr ; EM/TB =07hr ; ZMET =80 ;		
PF Struct, Final measurement & Transfer														
5-3-11.000		Install PF support structure (WBS 7)	0	2	12JUL10	09JUL10	0	0.00				41=00\$K ;		
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				ZMET =16 ;		
5-3-11.02		Adjust VV supports to secure VV in place.	2	2	16JUL10	19JUL10	0	14,996.00				EM/TB =80hr ; ZMET =64 ;		
5-3-11.03		Install 3 primary fiducials for positioning	1	2	20JUL10	20JUL10	0	4,057.60				ZMET =32 ;		
5-3-11.04		Make a final measurement of all fiducials	2	2	21JUL10	22JUL10	0	10,144.00				ZMET =80 ;		

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
5-3-11.05		Acceptance test and Back Office approve data	2	2	23JUL10	26JUL10	0	0.00					EM/TB =00hr ;	
5-3-11.06		Check Assembly (bolts, etc)	3	2	27JUL10	29JUL10	0	15,301.40					EM/TB =100hr ; EM//EM =40hr ;	
5-3-11.07		Check Diagnostics (loops, thermocouples)	1	2	30JUL10	30JUL10	0	6,120.56					EM/TB =40hr ; EM//EM =16hr ;	
5-3-11.09		Check 6 modular coils (voltage etc)	2	2	02AUG10	03AUG10	0	9,180.84					EM/TB =60hr ; EM//EM =24hr ;	
5-3-11.1		Check trim coils (voltage etc)	2	2	04AUG10	05AUG10	0	9,180.84					EM/TB =60hr ; EM//EM =24hr ;	
5-3-11.11		Check TF coils (voltage etc)	1	2	06AUG10	06AUG10	0	6,120.56					EM/TB =40hr ; EM//EM =16hr ;	
5-3-12.01		Install crane rigging	1	2	09AUG10	09AUG10	0	6,880.80					EM/TB =80hr ;	
5-3-12.02		Remove platforms	1	2	10AUG10	10AUG10	0	3,440.40					EM/TB =40hr ;	
5-3-12.03		Weigh&transfer FPA to Station 6 in NCSX tc.	1	2	11AUG10	11AUG10	0	12,228.80					EM/TB =80hr ; 41=04\$K ;	
R1810-5333		Last field period assembled	0	2		11AUG10	0	0.00					▼	
19 - Stellarator Core Management and Integration														
Job: 1901 - Stellarator Core Mngtt&Integr-COLE														
191 - Stellarator Core Management & Oversight														
1901-08		WBS 191 FY08	LOE	249*	1	01OCT07A	29SEP08	1,522	147,785.61					cole=.50 fte nelson=.15 fte ; 35=06\$K ; ornl41=20.38k
1901-09		WBS 191 FY09	LOE	247*	1	01OCT08*	28SEP09	1,274	240,493.62					cole=.50 fte nelson=.15 fte ; 35=06\$K ; ornl41=20.38k
1901-10		WBS 191 FY10		498*	1	01OCT09*	30SEP11	737	510,981.21					cole=.50 fte nelson=.15 fte ; 35=06\$K ; ornl41=20.38k
1901-11		WBS 191 FY12		37*	1	03OCT11*	22NOV11	737	40,305.00					cole=.50 fte nelson=.15 fte ; 35=06\$K ; ornl41=20.38k
192 - Stellarator Core Integr & Global Analysis														
1902-08		WBS 192 FY08		249*	1	01OCT07A	29SEP08	1,522	155,004.85					ornlem=.55; ornldsnr=.3 ornl35=3k
1902-09		WBS 192 FY09		247*	1	01OCT08*	28SEP09	1,274	236,839.50					ornlem=.55; ornldsnr=.3 ornl35=3k
1902-10		WBS 192 FY10		498*	1	01OCT09*	30SEP11	774	505,262.03					ornlem=.55; ornldsnr=.3 ornl35=3k
1902-11		WBS 192 FY10		37*	1	03OCT11*	22NOV11	737	40,196.49					ornlem=.55; ornldsnr=.3 ornl35=3k
RISKMIT		Risk mitigation tasks		625*	1	01APR08*	30SEP10	1,024	380,109.82					ornlem=1804 hrs ornl41= \$90k
21 - Fueling Systems														
Job: 2101 - Fueling Systems-BLANCHARD														
211-101		Preliminary Design		42		03MAR09*	29APR09	318	40,631.36					em//em=48; em//sb=96 ea//sb=24; ee//em=112
211-105		PDR Fueling Systems		0			29APR09	318	0.00					▼
211-109		Final Design		42		30APR09	29JUN09	318	120,756.40					em//em=88; ea//sb=212 ee//em=448; em//sb=48
211-113		FDR Fueling Systems		0			29JUN09	318	0.00					▼
211-117		Title III		431		30JUN09	25MAR11	906	6,764.55					EM//EM =40hr ;
211-121		Procure Material and Supplies		65		01OCT09*	13JAN10	253	50,806.00					41=38\$K ;
211-125		Fabricate and Assemble		115		01OCT10*	22MAR11	70	97,654.80					em//sb=120; em//tb=528 em//em=40; ee//em=192
211-126		Test		5		23MAR11	29MAR11	70	21,609.20					em//em=40; ee//em=80

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
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					
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		31JAN08	27FEB08	324	9,877.20					
3101-352		Assy & detail dgws	45		31JAN08	02APR08	419	25,761.60					
3101-353		Prep installation procedure	10		03APR08	16APR08	419	6,151.20					
3101-354		Purchase materials	40		31JAN08	26MAR08	304	21,917.22					
3101-370		Check elect characteristics of cables	130		12OCT09	23APR10	50	10,201.10					
3101-351		Wind coils	130		27MAR08	29SEP08	304	29,167.60					
3101-355		Temp cable trays	65		01OCT08*	12JAN09	238	12,429.20					
3101-356		Dsn,purchase,install rack	65		01OCT08*	12JAN09	238	24,813.24					
3101-357		Fab coil clamps & ends	65		01OCT08*	12JAN09	238	20,560.58					
3101-358		Prep chassis & timing module	65		01OCT08*	12JAN09	238	10,031.00					
3101-359		Install Rogowski coils (budgeted in job 1815)	130		12OCT09	23APR10	50	0.00					
3101-360		Title III support	130		12OCT09	23APR10	1,135	10,050.60					
TF and PF Co-wound Loops													
3101-425		Design Protective boxes for PF	100*		01NOV07A	01APR08	1,570	3,558.24					
3101-426		Purchase SS Sheet	10		12NOV07A	13FEB08	363	226.93					
3101-452		Form Protective boxes	10		12NOV07A	27FEB08	363	2,661.38					
3101-454		Weld end plates of PF protective boxes	10		12NOV07A	12MAR08	363	284.29					
3101-427		Purchase Heat Shrink tubing	15		12NOV07A	20FEB08	1,484	591.56					
3101-428		Purchase add'l CoAxial cable	40		31JAN08	26MAR08	353	2,873.47					

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//tb=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//tb=120;ea//sb=20

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

em//em=16;em//sm=32;em//tb=162

41=.5k;ee//tb=120

em//em=60

EA/SB =60hr ; EM//EM =110hr ;

EM//TB =1; 41=0.87k

em//sm=102

em//tb=18

EM//TB =6; 41=2.0k

EM//TB =2hr ; 41=4.5\$;

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
3101-457		Rebuild connective air furnace	20		31JAN08	27FEB08	1,479	5,836.46	em//em=2;em//sm=40;41=.25k				
3101-458		FabTF,PF & solenoid co-wound loops	186		02JUL07A	25JUL08	1,459	8,479.90	em//sm=130				
3101-460		Check elect characteristics coax cables	30		28JUL08	08SEP08	1,459	17,193.00	em//sm=120; em//em=10				
3101-456		Title III	78		09SEP08	07JAN09	1,459	5,792.76	em//em=36				
T/C and Heater Tape Leads													
1204-140.2		Remaining Design T/C and Heater Tape Leads	44		31JAN08	01APR08	165	21,821.52	ea//sb=8;em//em=136				
1204-140.1		Peer Review T/C and Heater Tape Leads	5		02APR08	08APR08	165	4,613.40	em//em=30				
1204-141		Drawings Signed T/C and Heater Tape Leads	0			08APR08	165	0.00	▼				
1204-144		Check elect characteristics T/C & heater port 12	65		09APR08	10JUL08	165	14,583.80	EM//EM =10;em//sm=100				
1204-143		Machine twelve 2.75 CF blanks	10		09APR08	22APR08	220	4,696.56	em//sm=36				
1204-147		Field/Fab support (title III) T/C&Heater Tape	65		11JUL08	10OCT08	1,513	3,872.10	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	62		31JAN08	15MAY08	1,596	9,342.48	em//em=46;ea//sb=20				
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				
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Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY					
									FY08	FY09	FY10	FY11	FY12	
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						
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						
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						
380-120		E-beam mapping-Procure Ports	65		01JUL10	01OCT10	120	5,350.03						
380-130		E-beam mapping-Procure Data Acquisition	65		01JUL10*	01OCT10	120	13,375.08						
380-135		E-beam mapping- Assemble	65		04OCT10*	12JAN11	120	54,862.24						
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						
390-05		LOE Support FY09	247*		01OCT08*	28SEP09	1,274	29,714.48						
390-06		LOE Support FY10	246*		01OCT09*	28SEP10	1,026	30,581.21						
390-07		LOE Support FY11	248*		01OCT10*	28SEP11	776	32,131.29						
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						
411-1-100		Ex-Test cell AC pwr-Reactiv.&new instl	210		02NOV09*	08SEP10	223	12,285.52						
411-2-2		Grounding-Dsn	165		01MAY09*	05JAN10	205	31,659.40						
411-2-4		Grounding-Procure	107		21JUN10*	18NOV10	133	13,477.94						
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&xfrms)**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						

R//RM2 =240hr ; EM//EM =60hr ;
EA//SB =98hr ; 35=03\$K ;

R//RM2 =240hr ; EM//EM =60hr ;
EA//SB =98hr ; EC//EM =100hr ;

41=5\$K ; em/em=40

41=04\$K ;

41=10\$K ;

R//RM2 =160hr ; EM//EM =20hr ;
EMT/TB =576 ; ee//em=8
ee//tb=16

R//RM2 =173hr ;

R//RM2 =173hr ;

R//RM2 =173hr ;

R//RM2 =173hr ;

EA//SB =06hr ; EE//EM =02hr ;
EE//SM =02hr ;

41=05\$K ; EA//SB =05hr ;
EE//EM =08hr ; EE//SM =13hr ;
EE//TB =21hr ;

EA//SB =160hr ; EE//EM =72hr ;

41=10\$K ;

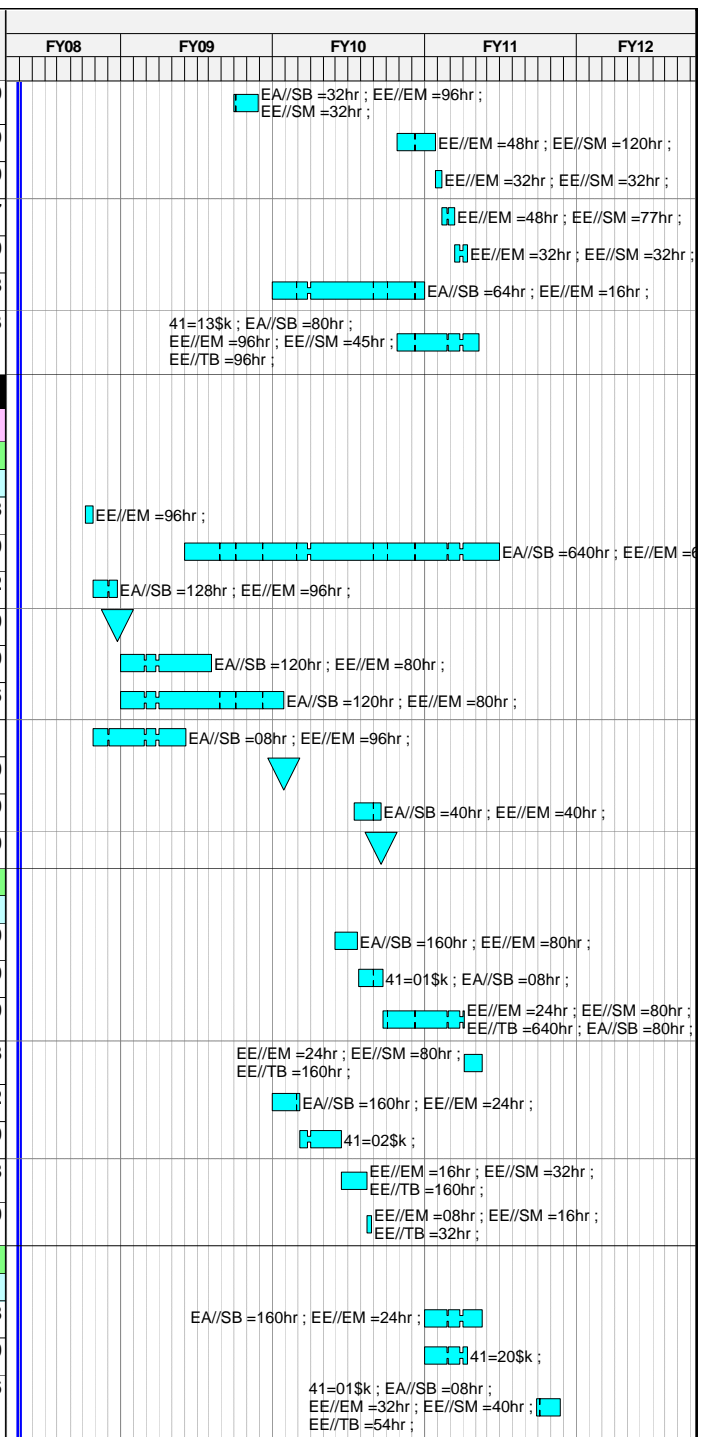
41=18\$K ; EE//EM =28hr ;
EA//SB =56hr ; EE//TB =112hr ;

EE//EM =24hr ; EA//SB =40hr ;
EE//TB =80hr ;

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY08					FY09					FY10					FY11					FY12				
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																									
X			1		03AUG09	03AUG09	133	0.00																									
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	1,521	4,407.34																									
431-275B		Power cabling & Installation FY10	107		01OCT09*	12MAR10	1,165	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																									
441-097		Install Interlock sys	40		14JAN10*	10MAR10	336	25,602.40																									
441-100		PLC Specification	160		01MAY08*	17DEC08	311	11,584.74																									
			RB08			NCSX Project			Sheet 52 of 73 21MAR08 16:15																								
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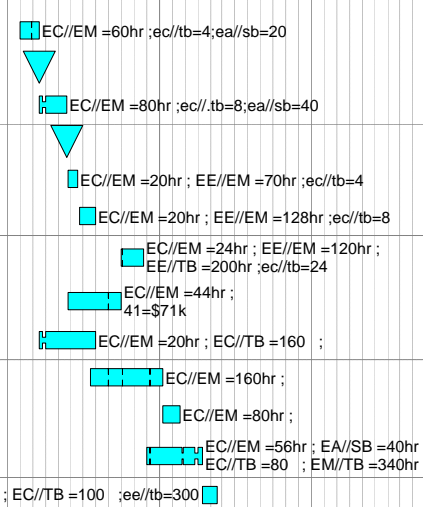
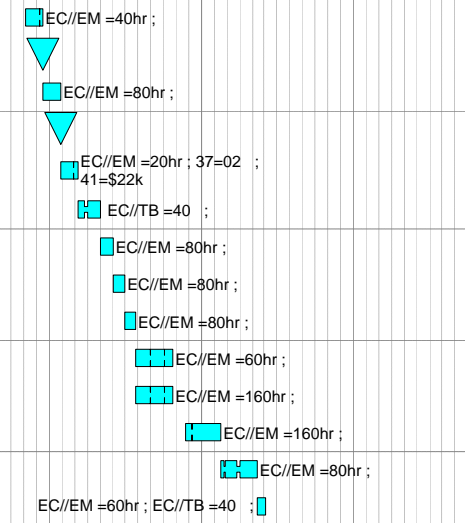
Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
441-105		Prep Block diagrams	60		02JAN09*	26MAR09	307	15,444.24					
441-110		PLC CWD's & Cabling	228		01OCT09*	01SEP10	116	63,718.88					
441-115		deliver PLC	187*		02NOV09*	05AUG10	100	100,275.00					
441-120		Program PLC Logic	45		06AUG10	08OCT10	100	46,613.89					
441-125		Program Control pages	40		11OCT10	07DEC10	100	30,369.84					
441-130		Pre-commissioning tests	20		08DEC10	12JAN11	100	27,150.40					
441-135		Install I/O Cabling control & protection	90		27SEP10	09FEB11	100	128,771.03					
442 - Kirk Key Interlocks													
442-1-2		Kirk Keys-Dsn	140		02MAR09*	16SEP09	276	22,040.80					
442-1-4		Kirk Keys-Procure	65		27MAY10*	27AUG10	106	8,918.44					
442-1-6		Kirk Keys-Install	90		30AUG10*	13JAN11	106	33,632.42					
442-1-8		Kirk Keys-Commission	20		14JAN11	10FEB11	106	7,686.72					
443 - Real Time Control Systems													
443-1-2		Develop Control Algorithms-Dsn	65		01OCT09*	13JAN10	376	13,866.40					
444 - Instrument Systems													
444-2-2		DC Potential Transducers (DCPTs)-Dsn	140		02MAR09*	16SEP09	331	8,843.44					
444-2-4		DC Potential Transducers (DCPTs)-Procure	65		27AUG10*	30NOV10	97	6,113.43					
444-2-6		DC Potential Transducers (DCPTs)-Install	40		01DEC10	02FEB11	97	22,211.60					
444-2-8		DC Potential Transducers (DCPTs)-Commission	15		03FEB11	23FEB11	97	13,140.60					
444-3-2		DCCT Design	81		01JUN09*	23SEP09	338	7,883.12					
444-3-4		Procure DCCT	88		01OCT09*	15FEB10	333	12,527.20					
444-3-6		Install DCCT	20		16FEB10*	15MAR10	333	19,555.72					
444-4-2		Signal Conditioning & Cabling-Dsn	160*		08OCT09*	03JUN10	136	86,163.60					
444-4-4		Signal Conditioning & Cabling-Procure	65		04JUN10*	03SEP10	136	18,817.28					
444-4-6		Signal Conditioning & Cabling-Install	65		07SEP10	08DEC10	136	27,658.90					
444-4-8		Signal Conditioning & Cabling-Commission	10		09DEC10	22DEC10	136	18,287.36					
445 - Coil Protection Systems													
445-1-2		Ground Fault Protection-Dsn	87		01JUL08*	31OCT08	352	32,648.51					
445-1-4		Ground Fault Protection-Procure	170		01OCT09*	10JUN10	126	16,143.28					
445-1-6		Ground Fault Protection-Install	75		22SEP10*	14JAN11	55	36,681.60					
445-1-8		Ground Fault Protection-Commission	70		17JAN11	22APR11	55	10,774.32					
445-2-105		Overload Protect-Write spec and approve	20		01JUN09*	26JUN09	337	13,472.80					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
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	FY					
									FY08	FY09	FY10	FY11	FY12	
453-1-5		PF Coil Test	40		27JUN11	22AUG11	11	18,965.06			41=01\$; EA/SB =08hr ; EE//EM =32hr ; EE//SM =40hr ; EE//TB =54hr ;			
453-1-6		Trim Coil Coil Test	40		27JUN11	22AUG11	11	136,368.68			41=01\$; EA/SB =08hr ; EE//EM =32hr ; EE//SM =40hr ; EE//TB =54hr ;			
453-1-8		Testing PTPs, ISTPs	40		27JUN11	22AUG11	11	159,275.76			41=10\$; EE//EM =240hr ; EE//SM =320hr ; EE//TB =376hr ; EA/SB =160hr ;			
51 - Network and Fiber Infrastructure														
Job: 5101 - Network and Fiber Infrastruct-SICHTA														
R51-10		Preliminary Design	30		01OCT09*	11NOV09	265	8,977.30			EC//EM =40hr ;ec//tb=10;ea/sb=20			
R51-11		PDR	0			11NOV09	265	0.00						
R51-20		Final Design	60		12NOV09	17FEB10	265	11,919.00			EC//EM =50hr ;ec//tb=30;ea/sb=20			
R51-21		FDR	0			17FEB10	265	0.00						
R51-30		Procurement	60		18JUN10*	13SEP10	180	95,270.68			EC//EM =24hr ; ec//tb=12 41=68\$;			
R51-50		Installation	80		14SEP10	13JAN11	180	97,809.22			EC//EM =68hr ; EC//TB =50 ; EA/SB =240hr ; EM//TB =570hr ; ee//tb=20			
R51-60		Test	14		14JAN11	02FEB11	180	7,390.48			EC//EM =28hr ; EC//TB =40 ;			
52 - Central Instrumentation & Control														
Job: 5201 - I&C Systems-SICHTA														
R52-10		Preliminary Design-Infrastructure	20		03AUG09*	28AUG09	218	9,847.00			EC//EM =60hr ;ec//tb=20			
R52-11		PDR	0			28AUG09	218	0.00						
R52-20		Final Design-Infrastructure	45		31AUG09	02NOV09	218	20,115.34			EC//EM =100hr ;ec//tb=80			
R52-21		FDR	0			02NOV09	218	0.00						
R52-25		Preliminary Design-Subsystems	50		03NOV09*	25JAN10	256	5,754.80			EC//EM =40			
R52-27		Final Design-Subsystems	50		26JAN10	05APR10	256	21,644.80			EC//EM =140hr ;ec//tb=20			
R52-30		Procurement	65		03NOV09	15FEB10	291	100,681.80			EC//EM =40hr ; 41=71\$;			
R52-40		EPICS Programming - Base	40		03NOV09*	11JAN10	218	11,509.60			EC//EM =80hr ;			
R52-50		EPICS Programming - VDCT db editor	40		03NOV09*	11JAN10	406	5,754.80			EC//EM =40hr ;			
R52-60		IOC Programming - MDSplus data & events	40		03NOV09*	11JAN10	406	17,264.40			EC//EM =120hr ;			
R52-70		OPC - EPICS/PLC Interface	40		12JAN10	08MAR10	218	25,507.20			EC//EM =160hr ; 35=02\$;			
R52-80		Appl. Programming-T/C	148		09MAR10	05OCT10	218	35,716.41			EC//EM =248hr ;			
R52-90		Programming - misc.	90		09MAR10	14JUL10	276	20,141.80			EC//EM =140hr ;			
R52-100		Installation	90		30AUG10*	13JAN11	154	112,538.22			EC//EM =84hr ; EC//TB =164 ; EA/SB =320hr ; EM//TB =480hr ; ee//tb=40			
R52-110		Test	40		14JAN11	10MAR11	154	25,140.72			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	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
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					

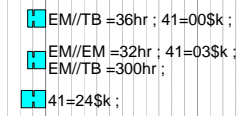
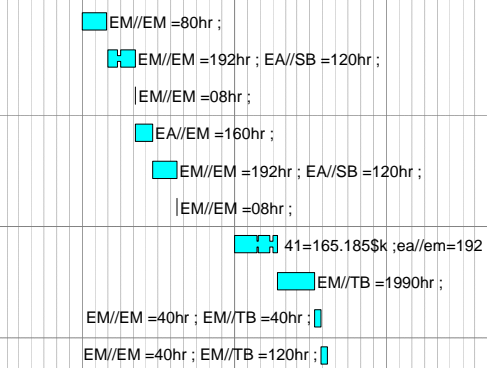
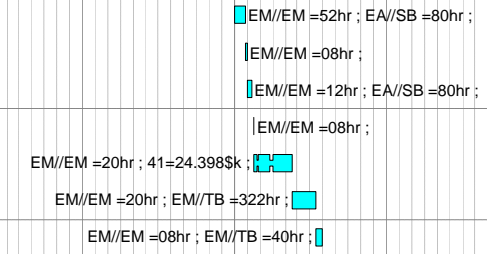
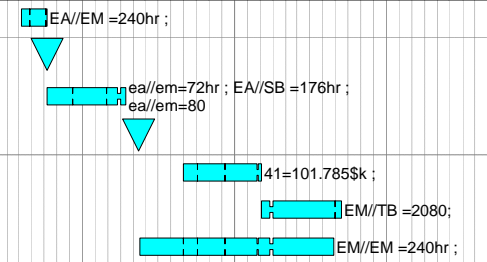


Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
55 - Real Time Plasma & Power Supply Control Sys													
Job: 5501 - Real Time Control System-SICHTA													
R55-10		FCPC - Preliminary Design	30		01OCT09*	11NOV09	209	20,611.52					
R55-11		PDR	0			11NOV09	209	0.00					
R55-20		FCPC -Final Design	60		12NOV09	17FEB10	209	38,767.40					
R55-21		FDR	0			17FEB10	209	0.00					
R55-30		FCPC - Procurement	65		19APR10*	20JUL10	167	178,272.60					
R55-40		Host Programming	115		21JUL10	10JAN11	172	17,751.25					
R55-42		ACQ Programming	115		21JUL10	10JAN11	167	11,834.16					
R55-45		PCS programming	115		21JUL10	10JAN11	167	17,751.25					
R55-48		PSRTC Programming	115		21JUL10	10JAN11	167	34,432.57					
R55-50		FCPC PLC Intgration-EPICS Prog	115		21JUL10	10JAN11	167	5,917.08					
R55-51		FCPC Data Acq & Ctl Installation	115		21JUL10	10JAN11	167	34,910.26					
R55-60		FCPC -Test	30		11JAN11	21FEB11	167	34,645.00					
R55-70		GISRTC - Preliminary Design	30		01OCT09*	11NOV09	219	10,696.80					
R55-71		PDR	0			11NOV09	219	0.00					
R55-80		GISRTC -Final Design	60		12NOV09	17FEB10	219	11,103.20					
R55-81		FDR	0			17FEB10	219	0.00					
R55-90		GISRTC - Procurement	60		18MAY10*	11AUG10	156	21,130.30					
R55-100		GISRTC Programming	115		12AUG10	01FEB11	156	11,915.30					
R55-110		GISRTC - Installation	115		12AUG10	01FEB11	156	33,107.79					
R55-120		GISRTC -Test	25		02FEB11	08MAR11	156	19,004.40					
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	98,334.54					



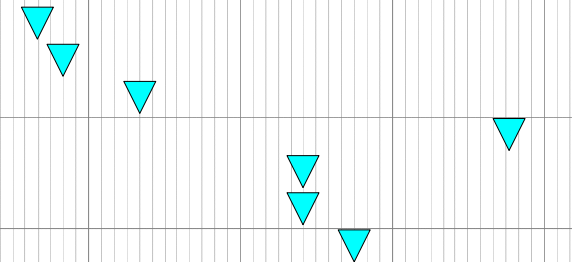
Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
R56-63		Installation for DARM's access control (2)	100		09AUG10	06JAN11	169	14,569.94					
R56-66		Installation add'l 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					
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					
R58-30		WBS58 -FY09 Management & Integration LOE	249		01OCT08*	30SEP09	1,272	16,773.60					
R58-40		WBS58 -FY10 Management & Integration LOE	248		01OCT09*	30SEP10	1,024	17,264.40					
R58-50		WBS58 -FY10 Management & Integration LOE	248		01OCT10*	28SEP11	776	18,139.20					
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					
6101-105		Procure Hardware and materials Vac Pmp water	90		07JUL10	10NOV10	100	30,955.14					
6101-110		Fabricate and Install Vac Pmp water sys	40		11NOV10*	17JAN11	100	36,490.65					
6101-115		Test Vac Pmp water sys	22		18JAN11	16FEB11	100	5,022.72					
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					
62122-310		CDR	0			23DEC08	132	0.00					
62122-320		Preliminary Design	210		02JAN09	27OCT09	132	128,207.06					
62122-330		PDR	0			27OCT09	132	0.00					
62122-340		Final Design	88		28OCT09*	12MAR10	132	118,794.80					
62122-350		FDR	0			12MAR10	132	0.00					
62122-360		Resolve FDR Chits	10		15MAR10	26MAR10	132	3,086.40					
62122-370		Procurements	130		29MAR10	29SEP10	132	251,115.34					
62122-380		Fabrication & Installation LN2 & LN2 coil supply	145	2	01OCT10*	03MAY11	131	200,621.40					
623 - GN2 Cryostat Cooling System													
623-099		GN2 Cryostat Cooling Sys Conceptual design	122*		01JUL08*	23DEC08	138	33,490.02					
623-100		GN2 Cryostat Cooling Sys CDR	0			23DEC08	138	0.00					
623-101		GN2 Cryostat Cooling Sys-Preliminary Design	130		02JAN09	06JUL09	138	160,208.52					
623-102		GN2 Cryostat Cooling Sys-Fab & test prototype	130		02JAN09	06JUL09	138	103,753.16					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
623-121		GN2 Cryostat Cooling Sys-Cooldown& thermal	40		08MAY09	06JUL09	138	44,983.20					
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					
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					
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	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					
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					



Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year				
									FY08	FY09	FY10	FY11	FY12
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					
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					
714.030		LOE Start of assy through thru completion	463*	1	25JAN10*	22NOV11	737	1,214,358.72					
714.031		Additional supervision for 2nd shift	311	2	16SEP10*	24NOV11	743	457,137.54					
8203FY11.1		Title III Design support	270*		26OCT10*	22NOV11	737	337,666.05					
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					
7501-05		Construction Support Crew during machine assy	463*	1	25JAN10*	22NOV11	61	888,356.70					
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					
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					
S-6-1.01		Assemble three field period support stands (see	54		01DEC09	24FEB10	45	46,632.80					
S-6-1.02		Assemble three spool piece support stands (see F	10		12JUL10	23JUL10	45	31,534.20					
S-6-1.03		Assemble machine base structure (see Fig 2a)	32		17DEC09	10FEB10	45	31,534.20					
S-6-1.04		Assemble three FPA installation carts (see Fig 1	10		11FEB10	24FEB10	45	31,534.20					
S-6-1.05		Assemble spool support stand platforms	20		25JUN10	23JUL10	45	63,068.40					

EM/EM =40hr ; EM/SM =40hr ;
EM/TB =160hr ;
EM/EM =48hr ; EM/SM =240hr ;
EM/TB =960hr ;



EM/EM =.5 fte ; EE/SM =.1 fte
Perry 1.0 fte Langella 1.0 fte em/sm=.5fte
2nd shift supervision 1.0 fte EM 1.0 fte SM
EA/EM =173hr ; EA/EM =670hr ;
EA/SB =345hr ; EM/EM =67hr ;
(total .25 fte designer and .25 fte engr)

Tool Crib Control em/tb=(.75 fte)
Crane Operator & support em/tb= (1.0 fte)
Forklift Operator & support em/tb= (1.0 fte)
Tool Crib Control em/tb=(.75 fte)
Crane Operator & support em/tb= (1.0 fte)
Forklift Operator & support em/tb= (1.0 fte)

EM/EM =00hr ; 41=04\$K ;
EM/SM =00hr ; EM/TB =480hr ;
EM/EM =00hr ; 41=04\$K ;
EM/SM =00hr ; EM/TB =480hr ;
EM/EM =00hr ; 41=04\$K ;
EM/SM =00hr ; EM/TB =480hr ;
EM/EM =00hr ; 41=03\$K ;
EM/SM =00hr ; EM/TB =320hr ;
EM/EM =00hr ; 41=03\$K ;
EM/SM =00hr ; EM/TB =320hr ;
EM/EM =00hr ; 41=06\$K ;
EM/SM =00hr ; EM/TB =640hr ;

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year						
									FY08	FY09	FY10	FY11	FY12		
S-6-1.06		Fabricate and Assemble 3 laser support polls	29		16DEC09	04FEB10	45	31,534.20			EM/EM =00hr ; 41=03\$K ; EM/TB =320hr ;				
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			EM/EM =00hr ; EM/SM =00hr ; EM/TB =700hr ; 41=43\$K ; EA/EM =88hr ;				
S-6-2.02		Install the laser supports	6	NO	05FEB10	12FEB10	45	18,519.42			EM/EM =00hr ; 41=02\$K ; EM/TB =192hr ;				
S-6-2.03		Laser tracker support pole bases installed	9	NO	15FEB10	25FEB10	45	27,845.98			EM/EM =00hr ; 41=02\$K ; EM/TB =288hr ;				
S-6-2.04		Install laser support pole on each Period base.	3		26FEB10	02MAR10	45	9,593.96			EM/EM =00hr ; 41=01\$K ; EM/TB =96hr ;				
S-6-2.05		Establish global coordinate system	6	NO	03MAR10	10MAR10	45	6,086.40			EM/EM =00hr ; EA/EM =00hr ; ZMET =48 ;				
S-6-2.06		Qualify laser accuracy when laser is installed	6	NO	11MAR10	18MAR10	45	6,086.40			EM/EM =00hr ; EA/EM =00hr ; ZMET =48 ;				
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			EM/EM =00hr ; 41=03\$K ; EM/SM =00hr ; EM/TB =480hr ;				
S-6-3.02		Install each of three FPA carts and drive system	15		25FEB10	17MAR10	45	61,927.20			EM/EM =00hr ; EM/SM =00hr ; EM/TB =720hr ;				
S-6-3.04		Position the lower PF 5 and 6 coils	1		18MAR10	18MAR10	45	2,752.32			EM/EM =00hr ; EM/SM =00hr ; EM/TB =32hr ;				
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			EM/EM =00hr ;				
S-6-4.01A		Exercise assembly structure with FPA-1	40	NO	19MAR10	13MAY10	45	95,622.40			EM/EM =00hr ; EM/SM =00hr ; ZMET =320 ; EM/TB =640hr ;				
S-6-4.02		Move FPA 1 support fixture to the assembly posit	1		14MAY10	14MAY10	45	2,064.24			EM/EM =00hr ; EM/SM =00hr ; EM/TB =24hr ;				
S-6-4.03		Using laser at Period 1 establish a global coor	2	NO	17MAY10	18MAY10	45	2,028.80			EM/EM =00hr ; EA/EM =00hr ; ZMET =16 ;				
S-6-4.04		Position Period 1 on the period support stand	0		19MAY10	18MAY10	45	0.00			EM/EM =00hr ; EM/SM =00hr ; EM/TB =00hr ;				
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			EM/EM =00hr ; EA/EM =00hr ; EM/SM =00hr ; ZMET =16 ; EM/TB =24hr ;				
S-6-4.06		AirLoc Wedgemount levelerup to take the load.	1		20MAY10	20MAY10	45	4,093.04			EM/EM =00hr ; EA/EM =00hr ; EM/SM =00hr ; ZMET =16 ; EM/TB =24hr ;				
S-6-4.07		Return FPA support fixt with Period 1 to extrac	1		21MAY10	21MAY10	45	4,093.04			EM/EM =00hr ; EA/EM =00hr ; EM/SM =00hr ; ZMET =16 ; EM/TB =24hr ;				
S-6-4.09		Install personnel lift platform on right side Pe	0		24MAY10	21MAY10	45	0.00			EM/EM =00hr ; EA/SB =00hr ;				
S-6-4.09A		Fabricate platform	3		19MAY10	21MAY10	45	19,389.76			EM/EM =00hr ; 41=05\$K ; EM/SM =00hr ; EM/TB =96hr ; EA/SB =36hr ;				
S-6-4.09B		Install platform	1		24MAY10	24MAY10	45	2,752.32			EM/EM =00hr ; EM/SM =00hr ; EM/TB =32hr ;				
S-6-4.10		Measure VV &MC end flanges right side of Period	10		25MAY10	08JUN10	45	20,288.00			EM/EM =00hr ; EA/EM =00hr ; ZMET =160 ;				
S-6-4.11		Measure the Period 1 left side VV &Type-C flange	0		09JUN10	08JUN10	45	0.00			EM/EM =00hr ;				
S-6-4.11A		Install platform	1		09JUN10	09JUN10	45	2,752.32			EM/EM =00hr ; EM/SM =00hr ; EM/TB =32hr ;				
S-6-4.11B		Measure end flange	10		10JUN10	23JUN10	45	20,288.00			EM/EM =00hr ; EA/EM =00hr ; ZMET =160 ;				

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY					
									FY08	FY09	FY10	FY11	FY12	
S-6-4.12		Machine Period 1 C side spool flange only	20	VEN	24JUN10	22JUL10	45	28,077.00						EM/EM =00hr ; 41=21\$K ;
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	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 ; EA/EM =00hr ; EM/SM =00hr ; ZMET =16 ; 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 ;

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY08												FY09												FY10												FY11												FY12											
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 ;																							
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\$K ; 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\$K ; 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 ; EM//TB =00hr ;																							
7503-150	2	FPA-3 Installed on sleds	0	1		16AUG10	0	0.00																																					EM//EM =00hr ; EM//SM =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\$K ; 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\$K ; 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\$K ; 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 ;																							

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY									
									FY08	FY09	FY10	FY11	FY12					
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\$K ; EM/TB =80hr ;
S-6-11.01C		Install	2		10SEP10	13SEP10	0	6,841.64										EM/EM =00hr ; 41=01\$K ; EM/SM =00hr ; EM/TB =64hr ;
S-6-11.02		Removeplatforms used for C-C surface measurement	2		10SEP10	13SEP10	0	5,504.64										EM/EM =00hr ; EM/SM =00hr ; EM/TB =64hr ;
S-6-11.03		Slowly bring 3 FPA support fixtures to within a	1		14SEP10	14SEP10	0	2,752.32										EM/EM =00hr ; EM/SM =00hr ; EM/TB =32hr ;
S-6-11.04A		Design platforms to access type-C flanges	20	NO	03MAY10*	28MAY10	68	12,355.00										EM/EM =00hr ; EM/SM =00hr ; EA/SB =100hr ;
S-6-11.04B		Fabricate	5		07SEP10	13SEP10	0	20,250.80										EM/EM =00hr ; 41=10\$K ; EM/TB =80hr ;
S-6-11.04C		Install	1	2	14SEP10	14SEP10	0	6,841.64										EM/EM =00hr ; 41=01\$K ; EM/SM =00hr ; EM/TB =64hr ;
S-6-11.04		Locate outboard shims (3 top / 3 bottom) each of	2	2	15SEP10	16SEP10	0	8,256.96										EM/EM =00hr ; EM/SM =00hr ; EM/TB =96hr ;
S-6-11.051		Design/spec camera system	20	NO	14APR10*	11MAY10	67	8,526.00										EM/EM =00hr ; EM/SM =60hr ;
S-6-11.052		Procure camera system	20		11JUN10*	09JUL10	46	0.00										EM/EM =00hr ; 41=00\$K ;
S-6-11.053		Train technicians on camera system	2		15SEP10	16SEP10	0	6,841.64										EM/EM =00hr ; 41=01\$K ; EM/SM =00hr ; EM/TB =64hr ;
S-6-11.05		Return 3FPA support fixt to installed position.	3	NO	17SEP10	21SEP10	0	8,256.96										EM/EM =00hr ; EM/SM =00hr ; EM/TB =96hr ;
S-6-11.06		Install studs supernuts shimmed locations; torqu	2	2	22SEP10	23SEP10	0	17,850.92										EM/EM =00hr ; 41=01\$K ; EM/SM =00hr ; EM/TB =192hr ;
S-6-11.08		"wiggle" test) on shims. Tighten bolt and reche	4	2	24SEP10	29SEP10	0	35,701.84										EM/EM =00hr ; 41=02\$K ; EM/SM =00hr ; EM/TB =384hr ;
S-6-11.07		Measure the C-C gap at each puck locations	3	2	30SEP10	04OCT10	0	15,522.00										EM/EM =00hr ; 41=02\$K ; EM/SM =00hr ; EM/TB =144hr ;
S-6-11.09		Metrology measurements of all periods.	1	2	05OCT10	05OCT10	0	3,196.80										EM/EM =00hr ; EA/EM =00hr ; ZMET =24 ;
S-6-11.1A		Back office input on new shim sizes	1	2	06OCT10	06OCT10	0	0.00										EM/EM =00hr ; EA/EM =00hr ;
S-6-11.1B		Loosen hardware and install new shims	2	2	07OCT10	08OCT10	0	8,675.52										EM/EM =00hr ; EM/SM =00hr ; EM/TB =96hr ;
S-6-11.1C		Install studs and supernuts torque to 50%	2	2	11OCT10	12OCT10	0	17,351.04										EM/EM =00hr ; EM/SM =00hr ; EM/TB =192hr ;
S-6-11.1D		"wiggle" test on shims Tighten bolts and reche	4	2	13OCT10	18OCT10	0	38,373.44										ornlem=16;ornldm=8 EM/TB =384hr ;
S-6-11.1E		measure the C-C gap at puck locations	3	2	19OCT10	21OCT10	0	18,520.32										ornlem=24;ornldm=12 EM/TB =144hr ;
S-6-11.1F		metrology measurements	1	2	22OCT10	22OCT10	0	5,032.48										ornlem=8;ornldm=4 ZMET =24 ;
S-6-11.11		Remove hardware return Period to retracted posi	1	2	25OCT10	25OCT10	0	10,511.20										ornlem=8;ornldm=4 EM/TB =96hr ;
S-6-11.12		Assemble all inboard shim pucks	2	2	26OCT10	27OCT10	0	6,173.44										ornlem=8;ornldm=4 EM/TB =48hr ;
S-6-11.13		inboard retaining plate&shim pucks 1 "C" interf	1	2	28OCT10	28OCT10	0	6,173.44										ornlem=8;ornldm=4 EM/TB =48hr ;
12.0 - Install Remaining TF Coils																		
S-6-12.01A		Design and fabricate temporary TF supports.	30		14JUN10*	26JUL10	67	24,457.60										EM/EM =00hr ; 41=08\$K ; EA/EM =00hr ; EM/TB =160hr ;
S-6-12.01		Install TF coils at each end with full TF suppor	6		29OCT10	05NOV10	0	17,351.04										EM/EM =00hr ; EM/SM =00hr ; EM/TB =192hr ;
S-6-12.02		align to fiducials on MC locking into minimum of	4	NO	08NOV10	11NOV10	0	8,524.80										EM/EM =00hr ; EA/EM =00hr ; ZMET =64 ;
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Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY08												FY09												FY10												FY11												FY12											
S-6-12.03		Position FP1 TF coils so they are properly align	3	NO	12NOV10	16NOV10	0	15,069.12													EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =48 ; EM//TB =96hr ;																																															
S-6-12.04		Secure FP1 TF coils in place to measure the oute	4	NO	17NOV10	22NOV10	0	14,308.48													EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; EM//TB =64hr ; ZMET =64 ;																																															
S-6-12.05		measure the interfacing FP1 TF surfaces	2	NO	23NOV10	24NOV10	0	7,914.88													EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =16 ; EM//TB =64hr ;																																															
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\$; EM//SM =00hr ; EM//TB =64hr ; EM//TB =128hr ;																																															
S-6-12.07A		On Period 2 install TF coils at each end	2	2	30NOV10	01DEC10	0	11,567.36													EM//EM =00hr ; EM//SM =00hr ; EM//TB =128hr ;																																															
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 ; EA//EM =00hr ; ZMET =64 ;																																															
S-6-12.07C		Position FP2 TF coils so they are properly align	2	2	06DEC10	07DEC10	0	15,069.12													EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =48 ; EM//TB =96hr ;																																															
S-6-12.07D		Secure FP2 TF coils in place to inspect and meas	2	2	08DEC10	09DEC10	0	14,308.48													EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; EM//TB =64hr ; ZMET =64 ;																																															
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 ; EM//SM =00hr ; ZMET =16 ; EM//TB =64hr ;																																															
S-6-12.07F		Retract FP2 TF coil outward as far as possible	1	2	13DEC10	13DEC10	0	8,523.68													EM//EM =00hr ; 41=02\$; EM//SM =00hr ; EM//TB =64hr ; EM//TB =128hr ;																																															
S-6-12.08A		On Period 3 install TF coils at each end	2	2	14DEC10	15DEC10	0	11,567.36													EM//EM =00hr ; EM//SM =00hr ; EM//TB =128hr ;																																															
S-6-12.08B		Align FP3 TF to fiducials on the MC locking into	2	2	16DEC10	17DEC10	0	8,524.80													EM//EM =00hr ; EA//EM =00hr ; ZMET =64 ;																																															
S-6-12.08C		Position FP3 TF coils so they are properly align	2	2	20DEC10	21DEC10	0	15,069.12													EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =48 ; EM//TB =96hr ;																																															
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 ; EM//SM =00hr ; EM//TB =64hr ; ZMET =64 ;																																															
S-6-12.08E		Measure interfacing Period 3 TF surfaces and the	1	2	03JAN11	03JAN11	0	7,914.88													EM//EM =00hr ; EA//EM =00hr ; EM//SM =00hr ; ZMET =16 ; EM//TB =64hr ;																																															
S-6-12.08F		Retract FP3 TF coil outward as far as possible	1	2	04JAN11	04JAN11	0	8,523.68													EM//EM =00hr ; 41=02\$; EM//SM =00hr ; EM//TB =64hr ;																																															
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\$;																							
S-6-13.02		Temporarily place lower TF centering disks	1	2	05JAN11	05JAN11	0	722.96													EM//EM =00hr ; EM//SM =00hr ; EM//TB =08hr ;																																															
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 ; EM//TB =96hr ;																																															
S-6-14.02		Install spool support stand and spool on platfo	1	2	07JAN11	07JAN11	0	2,891.84													EM//EM =00hr ; EM//SM =00hr ; EM//TB =32hr ;																																															
S-6-14.03		Install a camera for viewing the VV / spool inte	1	2	10JAN11	10JAN11	0	1,445.92													EM//EM =00hr ; EM//SM =00hr ; EM//TB =16hr ;																																															
S-6-14.04		verify each Period in proper orientation metr ch	1	2	10JAN11	10JAN11	0	4,262.40													EM//EM =00hr ; EA//EM =00hr ; ZMET =32 ;																																															
S-6-14.05		bring all three FPA & three spacers (spool piece	2	2	11JAN11	12JAN11	0	8,675.52													EM//EM =00hr ; EM//SM =00hr ; EM//TB =96hr ;																																															
7503-412M	2	Move FPA's & spacers together/chk fitup complete	0	2		12JAN11	0	0.00																																																												

 LEVEL II MILESTONE DATE
OCTOBER 2010

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY08												FY09												FY10												FY11												FY12																							
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 ;												EM//SM =00hr ; EM//TB =192hr ;																																															
S-6-14.06		Install local platforms access C-C interface	1	2	12JAN11	12JAN11	0	10,045.52													EM//EM =00hr ; 41=01\$K ;												EM//SM =00hr ; EM//TB =96hr ;																																															
S-6-14.07		re-install C-C shims Bring Periods final positio	2	2	13JAN11	14JAN11	0	8,675.52													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =96hr ;																																															
S-6-14.08		"wiggle" test Tighten bolt and recheck.	4	2	17JAN11	20JAN11	0	34,702.08													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =384hr ;																																															
S-6-14.09		Make shim adjustments if needed.	2	2	21JAN11	24JAN11	0	9,590.40													EM//EM =00hr ; EA//EM =00hr ;												ZMET =72 ;																																															
S-6-14.09A		Back office input on new shim sizes	1	2	25JAN11	25JAN11	0	0.00													EM//EM =00hr ; EA//EM =00hr ;																																																											
S-6-14.09B		Loosen hardware and install new shims	4	2	26JAN11	31JAN11	0	26,026.56													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =288hr ;																																															
S-6-14.10A		Design platform	20	NO	16AUG10*	13SEP10	72	9,884.00																									EM/EM =00hr ; EA//SB =80hr ;																																															
S-6-14.10B		Fabricate platform	10		18OCT10*	29OCT10	48	42,618.40													EM//EM =00hr ; 41=10\$K ;												EM//SM =00hr ; EM//TB =320hr ;																																															
S-6-14.1		Install local support platform in the solenoid	2	2	13JAN11	14JAN11	3	11,567.36													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =128hr ;																																															
S-6-14.11		Install remaining shims, studs supernuts torque	4	2	17JAN11	20JAN11	3	34,702.08													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =384hr ;																																															
S-6-14.12		"wiggle" test (rotate on bolt) Tighten bolt a	4	2	21JAN11	26JAN11	3	34,702.08													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =384hr ;																																															
S-6-14.13		Install bushing. Replace nut and tighten back t	11	2	01FEB11	15FEB11	0	174,938.72													ornlem=40;ornldm=20												EM//SM =00hr ; ZMET =528 ;												EM//TB =1,056hr ;																																			
S-6-14.14A		Torquing C-C	1	2	16FEB11	16FEB11	0	8,675.52													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =96hr ;																																															
S-6-14.14B		Sealing C-C	2	2	17FEB11	18FEB11	0	5,783.68													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =64hr ;																																															
S-6-14.14C		Retorque C-C all super-nuts after 30 days	3	2	17MAR11	21MAR11	50	26,026.56													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =288hr ;																																															
S-6-14.15		Measure the tooling balls on all Periods.	2	2	21FEB11	22FEB11	0	6,393.60													EM//EM =00hr ; ZMET =48 ;																																																											
S-6-14.16		Determ level sequence lowering machine on final	1	2	23FEB11	23FEB11	0	0.00													EM//EM =00hr ; EA//EM =00hr ;																																																											
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													EM//EM =00hr ; EA//EM =00hr ;												ZMET =12 ; 41=15\$K ;												EM//SM =00hr ; EM//TB =192hr ;																																			
S-6-15.02A		Design and fabricate clips	20	NO	26OCT10*	22NOV10	62	12,565.80													EM//EM =00hr ; 41=02\$K ;												EM//TB =80hr ; EA//SB =20hr ;																																															
S-6-15.02B		Develop weld procedure and qualify it.	20	NO	29NOV10*	03JAN11	40	9,969.60																									EM/EM =00hr ; 41=02\$K ;												EM//TB =80hr ;																																			
S-6-15.02		properly position each spool pieces	6	NO	01MAR11	08MAR11	0	17,351.04													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =192hr ;																																															
S-6-15.03		Remove each spool support stand.	2	2	09MAR11	10MAR11	0	8,675.52													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =96hr ;																																															
S-6-15.04A		Move FPAs to final position	1	2	11MAR11	11MAR11	0	10,046.08													EM//EM =00hr ; EM//SM =00hr ;												EA//EM =00hr ; ZMET =32 ;												EM//TB =64hr ;																																			
S-6-15.04B		Weld vacuum vessel spool pieces (1st shift)	30	NO	14MAR11	22APR11	0	178,084.80													EM//EM =00hr ; EM//SM =00hr ;												ZMET =360 ; EM//TB =1,440hr ;																																															
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													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =720hr ;																																															
S-6-15.04D		Weld port 4s (1st shift)	24	NO	25APR11	26MAY11	0	116,441.28													EM//EM =00hr ; EM//SM =00hr ;												ZMET =288 ; EM//TB =864hr ;																																															
S-6-15.04E		Leak check / inspect port 4s welds (2nd shift)	8	NO	18MAY11	27MAY11	0	17,351.04													EM//EM =00hr ; EM//SM =00hr ;												EM//TB =192hr ;																																															

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
S-6-15.05		Remove all temporary vertical VV support rods	1	2	31MAY11	31MAY11	0	5,783.68			EM//EM =00hr ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-15.06		Place boots on all three spool ports	1	2	01JUN11	01JUN11	77	1,445.92			EM//EM =00hr ; EM//SM =00hr ; EM//TB =16hr ;			
S-6-15.07		Secure VV horizontal supports at each NB port.	1	2	01JUN11	01JUN11	22	1,445.92			EM//EM =00hr ; EM//SM =00hr ; EM//TB =16hr ;			
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			EM//EM =00hr ; EM//SM =00hr ; EM//TB =32hr ;			
S-6-16.02		Align TF centering disks and secure to MC she	1	2	02JUN11	02JUN11	0	3,577.12			EM//EM =00hr ; EM//SM =00hr ; EA//EM =00hr ; EM//TB =16hr ; ZMET =16 ;			
S-6-16.03		Pull / push TF coils are into wedged position.	4	2	03JUN11	08JUN11	0	26,026.56			EM//EM =00hr ; EM//SM =00hr ; EM//TB =288hr ;			
S-6-16.04		Align fiducials on the MCs measure talignment of	1	2	09JUN11	09JUN11	0	4,262.40			EM//EM =00hr ; ZMET =32 ;			
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			EM//EM =00hr ; EM//TB =16hr ;			
S-6-17.02		Raise PF5,6 and install off lower PF support str	1	2	13JUN11	13JUN11	0	5,783.68			EM//EM =00hr ; EM//SM =00hr ; EM//TB =64hr ;			
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			EM//EM =00hr ; EM//SM =00hr ; EM//TB =96hr ;			
S-6-18.02		Install local machine support fittings	2	NO	16JUN11	17JUN11	0	8,675.52			EM//EM =00hr ; EM//SM =00hr ; EM//TB =96hr ;			
S-6-18.03		Obtain Wedgemount leveling sequence	0		20JUN11	17JUN11	0	0.00						EM//EM =00hr ;
S-6-18.04		Transfer machine weight fromtemp supports to fin	3	NO	20JUN11	22JUN11	0	13,013.28			EM//EM =00hr ; EM//SM =00hr ; EM//TB =144hr ;			
S-6-18.05		Retract & remove the FPA support stands and cart	3	NO	23JUN11	27JUN11	0	13,013.28			EM//EM =00hr ; EM//SM =00hr ; EM//TB =144hr ;			
S-6-18.06		Install inboard machine supports at the "A-A" in	3	NO	28JUN11	30JUN11	0	13,013.28			EM//EM =00hr ; EM//SM =00hr ; EM//TB =144hr ;			
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			EM//EM =00hr ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-19.02		Install vacuum system off Period 1 NB transition	1	2	05JUL11	05JUL11	2	5,783.68			EM//EM =00hr ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-19.03		Install pumping rack in Period 1 area near pump	3	2	01JUN11*	03JUN11	19	8,599.60			EM//EM =00hr ; 41=01\$K ; EM//SM =00hr ; EM//TB =80hr ;			
S-6-19.04		Perform A/C pwr connections&pump sys RGA / IG ho	2	2	06JUN11	07JUN11	19	7,153.68			EM//EM =00hr ; 41=01\$K ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-19.05		Install gas injection sys on upper port 12 on Pe	1	2	06JUL11	06JUL11	2	722.96			EM//EM =00hr ; EM//TB =08hr ;			
S-6-19.06		Install E-Beam mapping and diagnostic equipment	5	2	01JUL11	08JUL11	0	44,972.40			EM//EM =00hr ; 41=03\$K ; EM//SM =80hr ; EM//TB =320hr ;			
7503-250	2	Begin Vac Vsl Pumpdown	0	2		08JUL11	0	0.00			***** PUMP DOWN OF VACUUM VESSEL DOE LEVEL 2 MILESTONE *****			
S-6-19.07		Pumpdown vacuum vessel & perform full leakcheck	8	2	11JUL11	20JUL11	0	71,853.00			EM//EM =60hr ; EM//SM =120hr ; EM//TB =480hr ;			
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			EM//EM =00hr ; EM//SM =00hr ; EM//TB =640hr ;			

Activity ID	MILE -STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	Fiscal Year					
									FY08	FY09	FY10	FY11	FY12	
S-6-20.02A		Design & install feed tubes f/aerogel distributi	10	2	06JUL11	19JUL11	43	28,918.40			EM//EM =00hr ; EM//SM =00hr ; EM//TB =320hr ;			
S-6-20.0B		Procure agitators assure compl fill of aerogel	1	2	20JUL11	20JUL11	43	16,440.00						41=12\$sk ;
S-6-20.02		Fill MC / VVSA annulus with pourable aerogel ins	2	NO	21JUL11	22JUL11	43	5,783.68			EM//EM =00hr ; EM//SM =00hr ; EM//TB =64hr ;			
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			EM//EM =00hr ; EM//SM =00hr ; EM//TB =96hr ;			
S-6-21.02		Temporary secure (slanted) trim coils	1	2	22JUL11	22JUL11	0	4,337.76			EM//EM =00hr ; EM//SM =00hr ; EM//TB =48hr ;			
S-6-21.03		Install magnet systems support structure off TF	1	2	25JUL11	25JUL11	0	8,675.52			EM//EM =00hr ; EM//SM =00hr ; EM//TB =96hr ;			
S-6-21.04		Attach the trim coils to the magnet system struc	1	2	26JUL11	26JUL11	0	4,337.76			EM//EM =00hr ; EM//SM =00hr ; EM//TB =48hr ;			
S-6-21.05		Attach channel structure behind TF coil located	1	2	27JUL11	27JUL11	0	4,337.76			EM//EM =00hr ; EM//SM =00hr ; EM//TB =48hr ;			
S-6-21.06		Perform metrology measurements new trim coils	3	NO	28JUL11	01AUG11	0	6,393.60			EM//EM =00hr ; EA//EM =00hr ; ZMET =48 ;			
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			EM//EM =00hr ; EA//EM =00hr ; ZMET =48 ;			
S-6-22.03		Install solenoid central support column	1	2	04AUG11	04AUG11	0	2,891.84			EM//EM =00hr ; EM//SM =00hr ; EM//TB =32hr ;			
S-6-22.04		Lower solenoid assy and secure	2	2	05AUG11	08AUG11	0	11,567.36			EM//EM =00hr ; EM//SM =00hr ; EM//TB =128hr ;			
S-6-22.05		Install PF-4 lower	1	2	09AUG11	09AUG11	0	7,153.68			EM//EM =00hr ; 41=01\$sk ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-22.06		Install PF-5 upper.	1	2	10AUG11	10AUG11	0	7,153.68			EM//EM =00hr ; 41=01\$sk ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-22.07		Install PF-6 upper.	1	2	11AUG11	11AUG11	0	7,153.68			EM//EM =00hr ; 41=01\$sk ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-22.08		Align PF-5 lower and secure in place.	1	2	12AUG11	12AUG11	0	7,153.68			EM//EM =00hr ; 41=01\$sk ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-22.09		Align PF-6 lower and secure in place.	1	2	15AUG11	15AUG11	0	7,153.68			EM//EM =00hr ; 41=01\$sk ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-22.1		Install laser tracker to align PF-4 upper	1	2	16AUG11	16AUG11	0	2,131.20			EM//EM =00hr ; EA//EM =00hr ; ZMET =16 ;			
S-6-22.11		Install PF-4 upper; align and secure in place.	1	2	17AUG11	17AUG11	0	7,153.68			EM//EM =00hr ; 41=01\$sk ; EM//SM =00hr ; EM//TB =64hr ;			
S-6-22.11M	2	ALL PF Coils Installed	0	2		17AUG11	0	0.00						▼
23.0 - Instl/Route Mag Leads to Transition Box														
S-6-23.00C		Install transition boxes	3	2	18AUG11	22AUG11	0	23,058.80			EM//EM =00hr ; 41=01\$sk ; EM//SM =00hr ; EM//TB =240hr ;			
S-6-23.01		Support and route all TF leads.	3	2	23AUG11	25AUG11	0	39,171.78			ornlem=18 ; 41=04\$sk ; ornldm=8 ; EM//TB =288hr ; EA//EM =18hr ;			
S-6-23.02		Support and route all MC leads.	3	2	26AUG11	30AUG11	0	39,171.78			ornlem=18 ; 41=04\$sk ; ornldm=8 ; EM//TB =288hr ; EA//EM =18hr ;			
S-6-23.03		Support and route all PF leads to the designated	2	2	31AUG11	01SEP11	0	20,039.09			ornlem=9 ; 41=02\$sk ; ornldm=8 ; EM//TB =144hr ; EA//EM =9hr ;			
S-6-23.04		Support and route all trim coil leads.	8	2	02SEP11	14SEP11	0	102,034.08			ornlem=48 ; 41=10\$sk ; ornldm=8 ; EM//TB =768hr ; EA//EM =48hr ;			
S-6-23.5		Install and route all magnet leads from transiti	5	2	23AUG11	29AUG11	11	59,735.28			EM//TB =528hr ; Raki =66hr ;			
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Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
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			EM//EM =00hr ; 41=01\$sk ;		
S-6-24.05		grounding wires to single ground point in cryostat	5	2	19SEP11	23SEP11	0	69,763.12			EM//SM =00hr ; EM//TB =48hr ;		
S-6-24.02B		Run I&C from PF to transition box	5	2	26SEP11	30SEP11	10	48,015.20			EM//EM =00hr ; 41=05\$sk ;		
S-6-24.03B		Run I&C from TF to transition box	5	2	03OCT11	07OCT11	10	52,159.60			EM//SM =66hr ; EM//TB =432hr ;		
S-6-24.04B		Run I&C from MC to transition box	5	2	10OCT11	14OCT11	10	52,159.60			EA//SB =108hr ;		
S-6-24.02A		Run LN2 lines to PF	2	2	17OCT11	18OCT11	10	17,340.12			EM//EM =00hr ; 41=02\$sk ;		
S-6-24.03A		Run LN2 lines to TF	2	2	19OCT11	20OCT11	10	17,340.12			EM//SM =40hr ; EM//TB =320hr ;		
S-6-24.04A		Run LN2 lines to MC	2	2	21OCT11	24OCT11	10	17,340.12			EA//SB =80hr ;		
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			ornlem=8 ; 41=02\$sk ;		
S-6-26		Install thermal insulation on all Port 4s	1	2	25JUL11	25JUL11	43	8,675.52			ornldm=4 ; EM//TB =128hr ;		
7503-330	2	Begin Cryostat Installation	0	2		23SEP11	0	0.00			ornlem=8 ; 41=02\$sk ;		
											ornldm=4 ; EM//TB =128hr ;		
											***** BEGIN CRYOSTAT INSTALLATION DOE LEVEL 2 MILESTONE *****		
S-6-29.1		Install cryostat base, vapor barrier, port boots	7	NO	26SEP11	04OCT11	0	37,977.14			EM//EM =00hr ; EM//SM =00hr ;		
S-6-29.2		Install power, LN2 and I&C feedthrus	4	NO	05OCT11	10OCT11	0	20,178.00			EM//TB =128hr ;		
S-6-29.3		Install cryostat cooling system and instrumentat	3	NO	11OCT11	13OCT11	0	47,952.00			EM//EM =00hr ; EM//SM =00hr ;		
S-6-29.4		Install cryostat midplane and port boots	7	NO	14OCT11	24OCT11	0	40,356.00			EM//TB =96hr ;		
S-6-29.5		Install cryostat upper section and port boots	11	NO	25OCT11	08NOV11	0	60,534.00			***** BEGIN CRYOSTAT INSTALLATION DOE LEVEL 2 MILESTONE *****		
S-6-31		Final LN2 connections to supplies.(incl in 6201)	5	2	25OCT11	31OCT11	10	0.00			EM//EM =00hr ; EM//SM =00hr ;		
S-6-32.1		Design I&C tray system in NCTC	20	NO	25JUL11*	19AUG11	50	8,307.84			EM//TB =320hr ; EA//EM =40hr ;		
S-6-35		Install all remaining test cell platforms	6	2	28JUN11	06JUL11	92	38,812.08			EM//EM =00hr ; EM//SM =00hr ;		
S-6-32.2		Install I&C tray system in NCTC	4	2	01NOV11	04NOV11	0	87,482.72			EM//TB =160hr ; EA//EM =20hr ;		
S-6-32.5		Install cable extensions from cryostat to J-boxe	6	2	07NOV11	14NOV11	0	153,445.68			EM//EM =00hr ; EM//TB =128hr ;		
S-6-29.6		Install cryostat circulation duct	4	NO	09NOV11	14NOV11	0	20,178.00			EM//SM =00hr ; EA//EM =160hr ;		
S-6-33		Connect 150 C bakeout system	5	2	08NOV11	14NOV11	0	15,760.00			EM//EM =00hr ; EM//SM =00hr ;		
S-6-36		Begin Startup Testing	0			14NOV11	0	0.00			EM//TB =480hr ; EA//EM =60hr ;		

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete						
									FY08	FY09	FY10	FY11	FY12	
76 - Tooling Design & Fabrication														
Job: 7601 - Tooling Design & Fabrication-PERRY														
713.020		Lab Fab/Assy/Installation	427	1	25JAN10*	03OCT11	773	32,352.69	EM//EM =80hr ; EM//SM =42hr ; EM//TB =140hr ;					
713.030		Tooling,assy fixtures,misc equipt	426	1	25JAN10*	30SEP11	61	81,381.97	41=60\$K ;					
713.040		General procurements	426	1	25JAN10*	30SEP11	61	61,036.48	41=45\$K ;					
713.050		Welding tools, materials & equipt	426	1	25JAN10*	30SEP11	61	108,509.30	41=80\$K ;					
713.060		Torque wrenches and multipliers	426	1	25JAN10*	30SEP11	61	115,408.76	41=80\$K ; EM//EM =40hr ;					
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	Hutch = .80 fte rate ; Strykowski =.95fte rate Pam =1.0 fte rate ; 35=34\$K ; 41=10\$K ; deputy p&c=.75fte rate					
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=.75fte 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=08\$K ; Don Rej =1.0 fte deputy p&c=.75fte rate					
810.909A		Project Management Office PPPL FY11 (LOE)	249		01OCT10*	29SEP11	775	740,665.49	Hutch =.50fte ; Strykowski=.95 fte 35=34\$K ; Pam =1.0 fte 41=08\$K ; Don Rej =1.0 fte deputy p&c=.75fte rate					
810.910		Project Management Office PPPL FY12 (LOE)	50*		03OCT11*	13DEC11	724	118,710.92	Hutch =.25 fte ; Strykowski=.95 fte 35=04\$K ; Pam =.5 fte 41=03\$K ; proj mgr=1.0 fte rate, deputy p&c=.5fte 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 =\$15k					
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 =6					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY						
									FY08	FY09	FY10	FY11	FY12		
8205FY08.2		Engr mgt & systems engr FY08	171*		31JAN08*	30SEP08	1,521	535,606.79		EA//EM =954hr ; EA//EM =190hr ; EE//EM =190hr ;		EA//EM =826hr ; EM//EM =1,018hr ;			
8205FY09		Engr mgt & systems engr FY09	249*		01OCT08*	30SEP09	1,272	845,982.20				EA//EM =1,295hr ; EA//EM =518hr ; EE//EM =518hr ;	EA//EM =1,036hr ; EM//EM =1,381hr ;		
8205FY10		Engr mgt & systems engr FY10	248*		01OCT09*	30SEP10	1,024	866,120.24					EA//EM =1,295hr ; EA//EM =1,036hr ; EE//EM =863hr ;	EA//EM =1,036hr ; EM//EM =1,295hr ;	
8205FY11		Engr mgt & systems engr FY11	250*		01OCT10*	30SEP11	774	790,953.29		EA//EM =1,122hr ; EA//EM =173hr ; EE//EM =690hr ;		EA//EM =863hr ; EM//EM =1,295hr ;			
8205FY12		Engr mgt & systems engr FY12	50*		03OCT11*	13DEC11	724	92,722.71					EA//EM =133hr ; EA//EM =00hr ; EE//EM =50hr ;	EA//EM =100hr ; EM//EM =165hr ;	
Job: 8203 - Design Integration-BROWN															
8203FY08-1		Service routing within cryostat & TC	42		29FEB08*	28APR08	1,629	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//DM =160hr ;		EA//SB =290hr ;			
8203FY09.2		FY09	249*		01OCT08*	30SEP09	1,272	767,277.69				EA//SB =1,320hr ; EM//EM =660hr ; EA//DM =822hr ;	EA//EM =1,320hr ; EA//EM =822hr ;		
8203FY10.2		FY10	248*		01OCT09*	30SEP10	1,024	789,689.43					EA//SB =1,320hr ; EM//EM =660hr ; EA//DM =822hr ;	EA//EM =1,320hr ; EA//EM =822hr ;	
8203FY11.2		FY11	250*		01OCT10*	30SEP11	774	656,821.56		EA//SB =1,320hr ; EM//EM =660hr ; EA//DM =00hr ;		EA//EM =1,160hr ; EA//EM =663hr ;			
8203FY12.2		FY12	50*		03OCT11*	13DEC11	724	141,515.10					EA//SB =252hr ; EM//EM =133hr ; EA//DM =00hr ;	EA//EM =232hr ; EA//EM =133hr ;	
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	129	26,210.80		EA//EM =80hr ;					
STAT3 PREP		Station 3 preparations	30		24SEP08	04NOV08	50	14,856.67						ellis =80	

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
METFY08RX		Support FPA Station 3	339*		05NOV08	24MAR10	0	90,857.10					
METDCP-5	3	Dimensional control plans for station 5	40		11JUN08	06AUG08	161	21,252.00					
STAT5PREP		Station 5 preparations	30		13APR09	22MAY09	50	22,491.60					
METFY09		Support FPA Station 5	325		02MAR09	17JUN10	44	91,380.18					
STAT6PREP		Station 6 preparations	130		29MAY09	02DEC09	45	45,417.43					
METDCP-6	3	Dimensional control plans for station 6	80		10AUG09	02DEC09	45	45,688.83					
METFY10		Support Final Machine Assy station 6	508		27OCT09*	09NOV11	746	95,643.02					
Job: 8215 Plant Design													
FY07 Rebaseline Exercise													
8210-07		Update plant model	19		31JAN08	26FEB08	1,673	15,225.60					
8210-08		Plant Design	826*		01OCT07A	31JAN11	945	185,670.65					
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					
8501-129		NCSX-XX, Administrative Control of Procedures	30		24NOV08	15JAN09	440	24,065.60					
8501-133		OP-AD-39, Conduct of Operations	10		16JAN09	29JAN09	440	6,016.40					
8501-137		OP-AD-56, Cntrl Equip & Syst Status (chain of c	10		23JAN09	05FEB09	440	6,016.40					
8501-141		OP-AD-24, Cntrl Workplace Cleanliness D-Site Exp	10		30JAN09	12FEB09	440	6,016.40					
8501-145		OP-AD-31, D- Site Fire Watch Requirements	10		06FEB09	19FEB09	440	6,016.40					
8501-149		OP-AD-03, Experimental Proposals for NCSX	10		13FEB09	26FEB09	440	6,016.40					
8501-153		OP-AD-117 Operation of the NCSX Access System	10		20FEB09	05MAR09	440	6,016.40					
8501-157		NCSX-OP-XX, Prep of Exper Areas for Machine	30		27FEB09	09APR09	440	18,049.20					
8501-161		NCSX-OP-XX, Operation of the NCSX TVPS	30		20MAR09	30APR09	440	18,049.20					
8501-165		NCSX-OP-XX, Testing NCSX HIS Safe for Access	30		10APR09	21MAY09	440	18,049.20					
8501-169		NCSX-OP-XX, Testing the NCSX Emergency Stop	30		01MAY09	12JUN09	440	18,049.20					
8501-173		NCSX-OP-XX, NCSX Training Matrix	30		22MAY09	06JUL09	440	18,049.20					
8501-177		NCSX-OP-XX, NCSX Ops Guide -Startup and	30		15JUN09	27JUL09	440	18,049.20					
8501-181		NCSX-OP-XX, HPP Daily Operations	20		14JUL09	10AUG09	440	12,032.80					
8501-185		NCSX-OP-XX, ACP & PDP Trip Control Settings	20		28JUL09	24AUG09	440	12,032.80					
8501-189		NCSX-OP-G-XX Preparation for NCSX pumpdown	30		11AUG09	22SEP09	440	18,049.20					
8501-193		NCSX-OP-XX Helium H/C System Operations	30		01SEP09	13OCT09	440	18,207.42					
8501-197		NCSX-OP-G-XX Daily Hi-Pot Test Vacuum Vessel	30		23SEP09	03NOV09	440	18,471.12					
8501-201		ISTP-NCSX-01 Coil EnergizationTests	40		14OCT09	10DEC09	440	24,768.80					
8501-205		OP-ECS-245 FCPC Daily Startup/Shutdown	20		25NOV09	05JAN10	440	12,384.40					
8501-209		NCSX-XX Leak Checking of NCSX	20		11DEC09	19JAN10	440	12,384.40					

Activity ID	MILE-STONE LEVEL	Activity Description	Duration (work days)	SHIFTS	Forecast Start	Forecast Finish	Total Float	Cost to Complete	FY				
									FY08	FY09	FY10	FY11	FY12
Start-up													
920.000		Startup Personnel	35	1	08NOV11	05JAN12	0	449,669.60					
8501-102		Punch list & CSIS & HIS PTP's complete,	5	1	18OCT11	24OCT11	0	0.00					
8501-103		PTP's complete for ECS,HCS,vac pmpg	5	1	25OCT11	31OCT11	0	0.00					
8501-104		ACC review and ORA	5	1	01NOV11	07NOV11	0	0.00					
730.1250	2	PSO Operational Readiness Assessment	0	1		07NOV11	0	0.00					
8501-301		Configure for Startup ISTP	5	1	08NOV11	14NOV11	0	0.00					
8501-304	2	Begin Start-up Testing	0	1		14NOV11	0	0.00					
8501-305		Coil Testing at room temp	5	1	15NOV11	21NOV11	0	0.00					
730.8200M	2	Cooldown of Machine	0	2		21NOV11	0	0.00					
8501-106		Machine cool down and cold test coils	10	1	22NOV11	07DEC11	0	0.00					
8501-107		Combined field testing, Make 1st Plasma	5	1	08DEC11	14DEC11	0	0.00					
8501-108		Vent VV, Config for & instl e-beam mapping	5	1	15DEC11	21DEC11	0	0.00					
8501-306		E-beam mapping	5	1	22DEC11	05JAN12	0	0.00					
8501-110	1	NCSX Startup Complete	0	1		05JAN12	0	0.00					
730.9000	1	CD-4	0	1		31JUL13*	0	0.00					
99 - PPPL Allocations													
Job: 8998 - Allocations-STRYKOWSKY													
99.08		PPPL Allocations FY08	LOE	249*	01OCT07A	29SEP08	1,522	288,467.40					
99.081		PPPL Allocations FY09	LOE	247*	01OCT08*	28SEP09	1,274	460,429.00					
99.09		PPPL Allocations FY10	LOE	248*	01OCT09*	30SEP10	1,024	488,909.72					
99.09A		PPPL Allocations FY11	LOE	250*	01OCT10*	30SEP11	774	513,607.80					
99.10		PPPL Allocations FY12		50*	03OCT11*	13DEC11	724	178,194.50					
Contingency													
Contingency-Project													
C08		Contingency FY08		170*	31JAN08*	29SEP08	1,522	0.00					
C09		Contingency FY09		247*	01OCT08*	28SEP09	1,274	2,730,000.00					
C10		Contingency FY10		246*	01OCT09*	28SEP10	1,026	3,044,000.00					
C11		Contingency FY11		248*	01OCT10*	28SEP11	776	10,126,000.00					
C12		Contingency FY11		252*	03OCT11*	28SEP12	522	7,770,000.00					

EM//EM =340hr ; EA//EM =100hr ;
EM//SB =680 ; EM//TB =300hr ;
EE//EM =300hr ; EE//SM =300hr ;
EC//EM =300hr ; R///RM2 =400hr ;

COMPLETE OPERATIONAL READINESS ASSESSMENT
DOE LEVEL 2 MILESTONE

