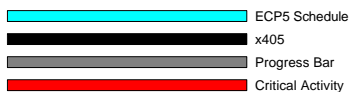


Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year									
							FY04	FY05	FY06	FY07	FY08	FY09				
<b>cc 9450 - NCSX Fabrication (MIE)</b>																
<b>11 - In-Vessel Components</b>																
<b>111 - Limiters</b>																
<b>Job: 1101 - Limiter Adv Conc/Prel Dsn-GORANSON</b>																
<b>FY03 Actual Cost</b>																
1101-100	Update Conceptual Design	78*	15JUL03A	30SEP03A		60.00	ornl=\$058k									
<b>12 - Vacuum Vessel Systems</b>																
<b>121 - Vacuum Vessel Assembly</b>																
<b>Job: 1201 - Vacuum Vessel Prelim Dsn-GORANSON</b>																
<b>FY03 Actual Cost</b>																
1201-002	Apr-Sept MIE Cost ORNL	47	01APR03A	30SEP03A		319,050.00										
1201-003	Apr-MSept MIE Cost PPPL	47	01APR03A	30SEP03A		105,370.00										
1201-500	WBS 12 & 14 PDR	0		07OCT03A		0.00										
<b>Job: 1202 - Vacuum Vessel R&amp;D - VIOLA</b>																
<b>FY03 Actual Cost</b>																
1202-002	Apr-Sept MIE Cost ORNL	47	01APR03A	30SEP03A		60.00										
1202-003	Apr-Sept MIE Cost PPPL	47	01APR03A	30SEP03A		128,340.00										
<b>VV Field Weld R&amp;D</b>																
1203-405	Field Weld joint dsn & Specific spool piece *ECP6*	61*	01DEC03A	26FEB04	642	38,607.00	Goranson=45; Fortea=255									
1202-800	Inconnel Procurement *ECP6*	10	10MAY04*	21MAY04	588	1,783.60	41=\$1.4									
1202-803	Drawings for Arc/Samples *ECP6*	10	17MAY04*	28MAY04	583	3,230.00	dudek=20									
1202-806	Waterjet Arcs *ECP6*	2	01JUN04	02JUN04	583	1,228.80	em/tb=16									
1202-809	Machine weld groove *ECP6*	5	03JUN04	09JUN04	583	3,369.60	machinist=32									
1202-812	Anneal Samples *ECP6*	2	10JUN04	11JUN04	583	1,684.80	machinist=16									
1202-815	Setup weld test *ECP6*	4	14JUN04	17JUN04	583	1,228.80	em/tb=16									
1202-818	Weld samples *ECP6*	6	18JUN04	25JUN04	583	2,527.20	welder=24									
1202-821	Eval & Redesign Joint iteration 2 *ECP6*	5	28JUN04	02JUL04	583	3,230.00	dudek=20									
1202-824	Machine iteration 2 *ECP6*	5	06JUL04	12JUL04	583	3,369.60	machinist=32									
1202-827	Anneal iteration 2 *ECP6*	2	13JUL04	14JUL04	583	1,684.80	machinist=16									
1202-830	Weld iteration 2 *ECP6*	3	15JUL04	19JUL04	583	2,527.20	welder=24									
1202-833	Eval & redesign joint iteration 3 *ECP6*	4	20JUL04	23JUL04	583	3,230.00	dudek=20									
1202-836	Machine iteration 3 *ECP6*	4	26JUL04	29JUL04	583	3,369.60	machinist=32									
1202-839	Anneal iteration 3 *ECP6*	5	30JUL04	05AUG04	583	1,684.80	machinist=16									
1202-842	Weld iteration 3 *ECP6*	4	06AUG04	11AUG04	583	2,527.20	welder=24									
1202-845	SOW for full size test sample *ECP6*	26*	24MAR04*	28APR04	606	6,460.00	dudek=40									
1202-848	Bid,eval,award full size test sample *ECP6*	25	29APR04	03JUN04	606	1,615.00	dudek=10									
1202-851	vendor fab & deliver full size sample *ECP6*	25	04JUN04	09JUL04	606	78,055.00	41=60k; dudek=10									

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year									
							FY04	FY05	FY06	FY07	FY08	FY09				
1202-854	Instrument sample *ECP6*	15	12AUG04	01SEP04	583	5,748.20										
1202-857	Perform welds on sample *ECP6*	9	02SEP04	15SEP04	583	8,424.00										
1202-860	Measure Results *ECP6*	5	16SEP04	22SEP04	583	3,876.00										
1202-863	Report Results *ECP6*	5	23SEP04	29SEP04	583	3,876.00										
1202-866	Engineering Oversight *ECP6*	148	03MAR04*	29SEP04	1,279	18,249.50										
<b>VV Subcontractor Oversight</b>																
1202-400	Oversight and Contract Management	79*	01OCT03A	02JAN04A		62,738.00										
1202-401	Oversight and Contract Management	63*	05JAN04A	31MAR04	1,387	48,687.50										
1202-402	Oversight and Contract Management	85*	01APR04*	30JUL04	1,302	18,572.50										
<b>Major Tool Subcontract (S04344F)</b>																
1202-303	MT-Issue VVSA MIT/QA plans and C&S Est (3.1)	0*	02JUN03A	13JUN03A		17,153.60										
1202-305	MT-Issue Draft MIT/QA plan (3.2.1)	15	13JUN03A	27JUN03A		10,050.56										
1202-310	MT-Incorp Comments & Reissue MIT/QA Plan (3.2.1)	0*	10JUL03A	17JUL03A		0.00										
1202-315	Finalize SOW/contract & Release MT for PVVS Fab	52*	18JUL03A	15AUG03A		0.00										
1202-320	MT-PPPL Fabrication Release	0		15AUG03A		0.00										
1202-324	MT-PVVS Begin Fabrication (3.2.2)	56*	18AUG03A	30SEP03A		368,464.16										
1202-325	MT-PVVS Complete Fabrication (3.2.2) *ECP6	90*	10NOV03A	17MAR04	222	375,125.28										
1202-325.1	Major Tool VVSA Prototype Received	0		17MAR04	222	0.00										
1202-325A	Vist MT for welding	3	02FEB04*	04FEB04	1,446	2,584.00										
1202-327	PPPL Receipt Inspection of MT PVVS	10	18MAR04	31MAR04	218	14,148.00										
1202-330	MT-Final MIT/QA plans for VVSA (3.3.1)	19	27MAY04	23JUN04	197	6,370.00										
1202-335	MT-Firm Fixed Price Proposal for VVSA (3.3.2)	19	27MAY04	23JUN04	197	6,370.00										
1202-335.1	Major Tool VVSA Price Proposal Received	0		23JUN04	197	0.00										
<b>Rohwedder Subcontract (S04345F)</b>																
1202-403	RW-Issue VVSA MIT/QA plans and C&S Est (3.1)	0*	02JUN03A	13JUN03A		71,888.08										
1202-405	RW-Issue Draft MIT/QA plan (3.2.1)	76*	13JUN03A	27JUN03A		19,352.16										
1202-410	RW-Incorp Comments&Reissue MIT/QA Plan (3.2.1)	0*	10JUL03A	17JUL03A		0.00										
1202-415	Finalize SOW/contract & Release MT for PVVS Fab	52*	18JUL03A	15AUG03A		0.00										
1202-420	RW-PPPL Fabrication Release	0		15AUG03A		0.00										
1202-424	RW-PVVS Begin Fabrication (3.2.2)	131*	18AUG03A	30SEP03A		143,280.88										
1202-425.1	Rohwedder VVSA Prototype Received	0		17MAR04	222	0.00										
1202-435.1	Rohwedder VVSA Price Proposal Received	0		23JUN04	197	0.00										
1202-424A	RW identify fabricator	1	01DEC03A	15DEC03A		0.00										
1202-424B	PPPL approve new fabricator	1	16DEC03A	31DEC03A		0.00										
1202-424C	PPPL review fabricator QA	20*	02FEB04*	27FEB04	1,429	0.00										

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04												FY05												FY06												FY07												FY08												FY09											
1202-424D	PPPL visit fabricator (Jan)	2	02FEB04*	03FEB04	1,447	0.00																																																																								
1202-424E	PPPL visit fabricator (Feb)	2	16FEB04*	17FEB04	1,437	0.00																																																																								
1202-425	RW-PVVS Complete Fabrication (3.2.2) *ECP6*	118*	01OCT03A	17MAR04	222	311,059.84	41=\$144.06 k												41= + \$100.1 k ECP6																																																											
1202-427	PPPL Receipt Inspection of RW PVVS	10	18MAR04	31MAR04	218	14,148.00	Raftopolous=80, Keilbach=8												Boscoe=24																																																											
1202-430	RW-Final MIT/QA plans for VVSA (3.3.1)	19	27MAY04	23JUN04	197	23,709.14	41=\$18.61 k (R367406)																																																																							
1202-435	RW-Firm Fixed Price Proposal for VVSA (3.3.2)	19	27MAY04	23JUN04	197	15,122.38	41=\$11.87 k (R367406)																																																																							
<b>Job: 1203 - Vacuum Vessel Final Dsn-GORANSON</b>																																																																														
<b>Closeout PDR Design Deliverables</b>																																																																														
1203-101	Prepare documents for PDR closeout	62*	03NOV03A	30JAN04A		7,721.40	Goranson=60hr																																																																							
1203-111	Response to chits, prepare FY04 WP/WAF/Checklist	25	01OCT03A	31OCT03A		7,721.40	Goranson=60hr																																																																							
1203-121	Review, revise, and approve SRD	93*	01NOV03A	15MAR04	1,423	7,721.40	Goranson=60hr																																																																							
1203-131	Complete preliminary design of insulation and he	122*	10NOV03A	30APR04	1,389	11,582.10	ORNL Design=30hr;Goranson=60																																																																							
<b>PDR Recommendations</b>																																																																														
1203-400	350c Bakeout Study	94*	03NOV03A	31DEC03A		25,738.00	Goranson=200hr;																																																																							
1203-401	Analysis & testing of tube attachment method	20	01DEC03A	31DEC03A		0.00																																																																								
1203-402	Determine thermal expansion vw to mcc clearance	39*	01NOV03A	31DEC03A		0.00																																																																								
1203-403	Determine cost of fabrication	20	01DEC03A	31DEC03A		0.00																																																																								
1203-404	DECISION TO PROCEED WITH 350c BAKEOUT	0		31DEC03A		0.00																																																																								
<b>Final Design Tasks</b>																																																																														
121-000	Evaluate port ext & welding**PDR #10 & 11 &24	162	01JUL04*	28FEB05	1,161	11,973.12	omlem=88hrs																																																																							
1203-141	Finalize Spec for VVSA	50	16FEB04*	23APR04	201	18,067.60	Goranson=40hr;Viola=80																																																																							
1203-151	Update VVSA Drawings incl ECP6 add'l port config	102*	01DEC03A	23APR04	1,394	202,403.63	ORNL Design=870hr;Goranson=120												ECP6 = + 583 hrs for add'l port config																																																											
1203-161	Finalize & Sign All ICDs	71*	17NOV03A	26FEB04	237	15,442.80	Goranson=120hr																																																																							
1203-181	Start Thermal Analyses	82*	01NOV03A	30JAN04A		23,012.76																																																																								
1203-191	Start Eddy Current Analyses	87*	03NOV03A	30JAN04A		3,536.05																																																																								
1203-202	Start Port Nozzle Analysis	63*	02JAN04A	30JAN04A		5,142.40																																																																								
1203-232	Structural Analysis of Vac Vsl	65	02FEB04	30APR04	201	77,136.00	Dahlgren=480																																																																							
1203-233	Check structural analysis	10	03MAY04	14MAY04	201	12,638.08	Titus=80																																																																							
1203-234	Perform Global Seismic Analysis	30	01MAR04*	09APR04	1,404	37,914.24	titus=240																																																																							
1203-235	Perform Local Thermal Analysis	20	02MAR04*	29MAR04	215	15,442.80	Freudenberg=120																																																																							
1203-236	Check Local Thermal Analysis	20	30MAR04	26APR04	215	15,442.80	Goranson=120																																																																							
1203-237	Perform Thermal-Hydraulic Analysis VV htg/clng	20	01MAR04*	26MAR04	216	10,295.20	Goranson=80																																																																							
1203-238	Check Thermal-Hydraulic Analysis VV htg/clng	20	29MAR04	23APR04	216	12,856.00	Kalish=80																																																																							
1203-239	Perform Analysis of VV Supports	20	30MAR04*	26APR04	205	10,295.20	Freudenberg=80																																																																							
1203-240	Check Analysis of VV Supports	10	27APR04	10MAY04	205	5,147.60	Goranson=40																																																																							
1203-201	Update/Perform FMECA Analyses	44*	02FEB04*	01APR04	212	5,147.60	goranson=40																																																																							

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 Critical Activity

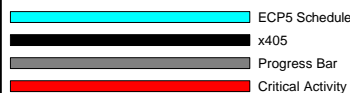
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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule																	
							FY04	FY05	FY06	FY07	FY08	FY09												
1203-241	Check FMECA Analyses	20	02APR04*	29APR04	212	0.00																		
1203-261	Provide Input to FP assy, Install & Startup Plan	128*	01OCT03A	31MAR04	1,401	12,869.00																		
1203-291	Update Design Basis Document	20*	21APR04*	18MAY04	199	2,059.04																		
1203-301	Update Cost and Schedule Estimates	20*	21APR04*	18MAY04	199	3,088.56																		
1203-321	Assemble FDR Drawing Package, Check & Promote	32*	01APR04*	14MAY04	201	4,118.08																		
1203-331	Prepare Presentations	15	26APR04*	14MAY04	201	12,869.00																		
1203-341	Conduct VVSA FDR	0		19MAY04	198	0.00																		
1203-311	Prepare Final Design ECP	10	20MAY04*	03JUN04	1,366	3,088.56																		
1203-271	Develop Assembly & Installation Procedures	167*	01JUL04*	28FEB05	265	44,133.45																		
1203-900	Comprehensive WBS 12 FDR	0		28FEB05	265	0.00																		
<b>Vacuum Vessel Vendor Selection</b>																								
121-6-6	Finalize tech Doc package & Resolve chits	15	06MAY04	26MAY04	193	1,286.90																		
121-6-8	Evaluate and Select VV Production Vendor	16	24JUN04	16JUL04	193	2,901.90																		
121-6-83	Negotiate with vendor	9	19JUL04	29JUL04	193	1,615.00																		
121-6-85	DOE Approve VV Selection & contract	11	30JUL04	13AUG04	193	0.00																		
121-6-9	Award VVSA Production Vendor (Phase funded)	0		13AUG04	193	0.00																		
121-36-9.2	Release for Fabrication	0		20AUG04	193	0.00																		
<b>Job:1204 - WBS 12 Title III, Procure,Fabricate</b>																								
121-031	VVSA Title III engr	639*	21MAY04*	22NOV06	736	238,831.20																		
121-038	FAB VVSA ba=6/2.27/0 BO=4/2.17/3	303	23AUG04	28OCT05	198	2,955,260.87																		
121-038.1	Vacuum Vessel Delivered	0		28OCT05	1,008	0.00																		
121-038A	Additional Ports (ECP 8)	303	23AUG04	28OCT05	1,008	240,007.27																		
121-038B	Port Extensions (ECP 8)	303	23AUG04	28OCT05	1,008	150,008.43																		
121-038P	FAB VVSA NB ports	303	23AUG04	28OCT05	314	150,367.60																		
<b>122 - Vacuum Vessel Thermal Insulation</b>																								
<b>Job: 1203 - Vacuum Vessel Final Dsn-GORANSON</b>																								
<b>Final Design Tasks</b>																								
122-011	Title II design WBS 122 Thermal insulation	167*	01JUL04*	28FEB05	265	42,921.58																		
<b>Job:1204 - WBS 12 Title III, Procure,Fabricate</b>																								
122-030	SPEA VV Thermal Insulation	65	05JUL05	03OCT05	112	0.00																		
122-036.9	Award VV Insulation	0		03OCT05*	112	0.00																		
122-037	VV Insulation Procurement WBS 122	105	04OCT05*	03MAR06	112	110,493.05																		
122-031	Title III engr WBS 122	176	24JUN05	03MAR06	922	21,460.89																		

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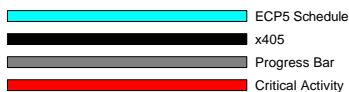
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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year											
							FY04	FY05	FY06	FY07	FY08	FY09						
<b>123 - Vacuum Vessel Heating and Cooling Distrib</b>																		
<b>Job: 1203 - Vacuum Vessel Final Dsn-GORANSON</b>																		
<b>Final Design Tasks</b>																		
1203-361	Final Design of Insulation and Heating/Cooling	230*	03NOV03A	28FEB05	265	31,127.06	Goranson=232hr											
<b>Job:1204 - WBS 12 Title III, Procure,Fabricate</b>																		
123-030	SPEA VV Heating & Cooling	65	01JUL05	30SEP05	113	0.00	[Bar]											
123-036.9	Award VV Heating/Cooling Distribution	0		30SEP05	113	0.00	[Bar]											
123-037	VV Heating/Cooling Distr Procurement WBS 123	65	03OCT05*	05JAN06	113	321,760.80	[Bar] 41=67.8\$k + 178.76= \$246.56											
123-041	VV Heating/Cooling Fab/Assy WBS 123	40	06JAN06	02MAR06	113	14,744.50	[Bar] EM//SM =34hr ; EM/TB =137hr ;											
123-031	Title III engr WBS 123	135	24JUN05	05JAN06	963	8,194.72	[Bar] Viola =08hr ; Goranson =48hr ;											
<b>124 - Vacuum Vessel Supports</b>																		
<b>Job: 1203 - Vacuum Vessel Final Dsn-GORANSON</b>																		
<b>Final Design Tasks</b>																		
124-011	Title II design WBS 124 VV supports	167*	01JUL04*	28FEB05	265	21,574.43	[Bar] ORNLEM =158hr ;											
<b>Job:1204 - WBS 12 Title III, Procure,Fabricate</b>																		
124-030	SPEA VV Supports	65	08JUL05	06OCT05	138	0.00	[Bar]											
124-036.9	Award VV Supports	0		06OCT05	138	0.00	[Bar]											
124-037	VV Supports Procurement WBS 124	100	07OCT05*	01MAR06	138	31,450.50	[Bar] 41=24.1\$k ;											
124-041	VV Supports Fab/assy WBS 124	20	02MAR06	29MAR06	138	660.60	[Bar] EM//SM =06hr ;											
124-031	Title III engr WBS 124	165	08JUL05	01MAR06	924	8,940.72	[Bar] Viola =02hr ; Goranson =60hr ;											
<b>125 - Vacuum Vessel Local I&amp;C</b>																		
<b>Job: 1203 - Vacuum Vessel Final Dsn-GORANSON</b>																		
<b>Final Design Tasks</b>																		
125-001	Title I design WBS 125 local I&C	43	22MAR04*	19MAY04	198	10,192.25	[Bar] ORNLEM =79hr ;											
125-011	Title II design WBS 125 local I&C	167*	01JUL04*	28FEB05	265	10,787.22	[Bar] ORNLEM =79hr ;											
<b>Job:1204 - WBS 12 Title III, Procure,Fabricate</b>																		
125-015	Title III design Local I&C	61	03OCT05*	29DEC05	238	2,608.38	[Bar] Goranson =18hr ;											
125-037	Procurement Local I&C	60	04OCT05*	29DEC05	238	3,132.00	[Bar] 41=2.4\$k ;											
<b>13 - Conventional Coils</b>																		
<b>130</b>																		
<b>Job: 1301 - Conventional Coils Prel Design-KALISH</b>																		
<b>FY03 Actual Cost</b>																		
1301-0002	Apr-Sept MIE Cost ORNL	64*	01APR03A	30SEP03A		0.00												
1301-0003	Apr-Sept MIE Cost PPPL	64*	01APR03A	30SEP03A		91,660.00												
<b>Material Property Analysis &amp; Testing</b>																		
1301-300	Investigate Experimental Data *ECP6*	5	12APR04*	16APR04	169	642.80	Kalish=4											

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04									FY05									FY06									FY07									FY08									FY09								
1301-303	Prepare Test Reqmnts *ECP6*	5	19APR04	23APR04	169	1,607.00	10Kalish=																																																					
1301-306	Testing on 2D glass,CTD *ECP6*	15	26APR04	14MAY04	169	1,928.40	Kalish=12																																																					
1301-309	Re-evaluate Analysis *ECP6*	5	17MAY04	21MAY04	169	6,370.00	Myatt=40																																																					
1301-312	Choose 3D or 2D glass *ECP6*	1	24MAY04	24MAY04	169	1,285.60	Kalish=8																																																					
1301-315	Re-evaluate Failure Criteria *ECP6*	5	12APR04	16APR04	189	1,607.00	Kalish=10																																																					
1301-318	Evaluate 3D glass *ECP6*	5	05APR04*	09APR04	189	642.80	Kalish=4																																																					
1301-321	Order Sample Materials *ECP6*	30	25MAY04	07JUL04	169	5,750.40	Kalish=12; 41=\$3k																																																					
1301-324	Build Samples *ECP6*	15	08JUL04	28JUL04	169	18,645.00	Kalish=30; em/tb=180																																																					
1301-327	Cryo Test for Coil Sample *ECP6*	15	29JUL04	18AUG04	169	14,511.00	Kalish=30;Kozub=60																																																					
1402-004	Subcontract analysis upport for PDR	41*	01OCT03A	26NOV03A		5,096.00	41=\$4k																																																					
1402-005	VV/MCC PDR support	37*	01OCT03A	31OCT03A		4,178.20	heltzenroeder=26hrs																																																					
1301-100	Prepare Scope Sheet to define interfaces	76*	03NOV03A	27FEB04	1,410	9,642.00	Kalish=60 ;																																																					
1301-105	Prepare Interface Dwgs for ICD's	92	01DEC03A	15APR04	182	4,821.00	Kalish=30																																																					
1301-110	Finalize ICDs	10	16APR04	29APR04	182	4,821.00	Kalish= 30																																																					
1301-115	Update design Basis Document	11	01APR04*	15APR04	192	7,231.50	Kalish= 45																																																					
1301-120	Finalize SRD	11	01MAR04*	15MAR04	215	4,821.00	Kalish= 30																																																					
1301-140	Complete Draft SOW	10	02JAN04A	15JAN04A		4,821.00	Kalish= 30																																																					
1301-145	Post Draft SOW on WEB to Solicit Vendr Input	2	16JAN04A	19JAN04A		1,285.60	Kalish=30																																																					
1301-150	Vendor Responses	102*	02FEB04*	23JUN04	144	7,231.50	Kalish= 45																																																					
1301-155	Trim Coil Layouts	59*	01OCT03A	23DEC03A		55,762.90	Kalish= 35 ;Rushinski= 312																																																					
1301-160	Trim Coil Leads	140*	01DEC03A	23JUN04	144	7,070.80	Kalish= 4 ;Rushinski= 40																																																					
1301-165	PF1-PF3 Support System Layouts	15	01DEC03A	30JAN04A		21,373.10	Kalish= 13 ;Rushinski= 120																																																					
163-001	Title I design CS sprt struc	140*	01DEC03A	23JUN04	144	58,370.66	ORNLEM=34;Kalish=212;Rushinski=124																																																					
1301-170	New Lead Details	10	01DEC03A	23DEC03A		14,141.60	Kalish= 8 ;Rushinski= 80																																																					
1301-175	Iterate & Finalize Design	128*	02JAN04A	30JUN04	139	29,568.80	Kalish= 24;Rushinski= 160																																																					
1301-180	Update ANSYS model & structure	142*	03NOV03A	01JUN04	145	8,294.62	Kalish= 5 ;MYATT=47																																																					
1301-185	FEA Analysis Coils,Stress deflection	125*	01DEC03A	02JUN04	159	12,272.40	Kalish= 7 ;MYATT=70																																																					
1301-190	FEA Analysis PF Supports,Stress Deflection	15*	02JUN04	22JUN04	145	12,272.40	Kalish= 7 ; MYATT=70																																																					
1301-195	Seismic Analysis	15	26NOV03A	26NOV03A		12,272.40	Kalish= 7 ; MYATT= 70																																																					
1301-125	Update Cost and Schedule	20	03JUN04	30JUN04	139	9,642.00	Kalish= 60																																																					
1301-130	Prepare for PDR	6	23JUN04	30JUN04	139	7,713.60	Kalish= 48																																																					
133-010	Title I design WBS 134 Conv Coil I&C	40	05MAY04*	30JUN04	139	14,784.40	Kalish =92hr ;																																																					
1301-135	Conventional Coil PDR	0		30JUN04*	139	0.00																																																						

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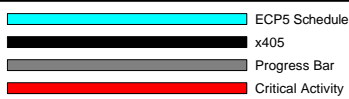
ECP8

NCSX Baseline ECP 8

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04									FY05									FY06									FY07									FY08									FY09								
<b>131 - TF Coils</b>																																																												
<b>Job: 1303 - WBS 13 Final Design -KALISH</b>																																																												
131-011	Title II design WBS 131 TF coils	64*	01JUL04*	30SEP04	139	100,189.87																																																						
131-012	WBS 13 TF FDR	0		30SEP04	139	0.00																																																						
<b>Job: 1304 - WBS 13 Procure/Fab/Title III-KALISH</b>																																																												
<b>TF Coils</b>																																																												
131-034	Bid & Award TF Coils	45	20OCT04*	23DEC04	126	0.00																																																						
131-035	TF Coils Awarded	0		14JAN05	117	0.00																																																						
131-037	TF Coil Procurement [A/1]	425	17JAN05*	15SEP06	117	1,233,928.97																																																						
131-037A	TF Coil cost correction	241	06OCT05	15SEP06	117	81,707.61																																																						
131-038	All TF Coils Delivered	0		15SEP06	117	0.00																																																						
131-031	Title III engr	433*	13JAN05*	29SEP06	761	130,456.04																																																						
<b>132 - PF Coils</b>																																																												
<b>Job: 1303 - WBS 13 Final Design -KALISH</b>																																																												
141-011	Title II design WBS 132 PF coils	249	01OCT04*	30SEP05	187	167,006.83																																																						
163-011	Title II design CS sprt struc	249	01OCT04*	30SEP05	187	53,216.38																																																						
141-012	WBS 13 PF/CS SPRT FDR	0		30SEP05	187	0.00																																																						
<b>Job: 1304 - WBS 13 Procure/Fab/Title III-KALISH</b>																																																												
<b>PF Coils</b>																																																												
141-035	Bid & Award PF Coils	45	30JAN06*	31MAR06	154	0.00																																																						
141-036	PF Coils Awarded	0		31MAR06	154	0.00																																																						
143-037	PF 4 Procurement [A/1]	155	03APR06	08NOV06	158	224,756.29																																																						
144-037	PF 5 Procurement [A/1]	155	03APR06	08NOV06	158	239,130.45																																																						
145-037	PF 6 Procurement [A/1]	155	03APR06	08NOV06	158	211,469.78																																																						
141-037	PF OH Solenoid Procurement PF1 [A/1]	205	01MAY06*	26FEB07	134	173,241.98																																																						
141B-037	PF OH Solenoid Procurement PF2 [A/1]	205	01MAY06*	26FEB07	134	138,102.22																																																						
142-037	PF OH Solenoid Procurement PF3 [A/1]	205	01MAY06*	26FEB07	134	146,668.65																																																						
141-031	Title III engr WBS 132	268	30JAN06*	22FEB07	665	141,578.37																																																						
<b>CS Support Structure</b>																																																												
163-035	Bid & Award CS Support Struct	45	21DEC05	01MAR06	132	0.00																																																						
163-036.9	Award CS Support Structure	0		01MAR06*	132	0.00																																																						
163-037	CS Support Structure Procurement/Fab	249	02MAR06*	28FEB07	132	195,207.78																																																						
163-015	Title III design CS sprt struc	294	21DEC05	28FEB07	661	57,061.93																																																						

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY										
							FY04	FY05	FY06	FY07	FY08	FY09					
<b>133 - External Trim Coils</b>																	
<b>Job: 1303 - WBS 13 Final Design -KALISH</b>																	
184-011	Title II design WBS 133 Ext trim coils	125	06APR05*	30SEP05	259	39,983.57											
<b>Job: 1304 - WBS 13 Procure/Fab/Title III-KALISH</b>																	
<b>Trim Coils</b>																	
184-035	Bid & Award Ext Trim Coils	45	01AUG05	03OCT05	258	0.00											
184-036	Award External Trim Coils	0		03OCT05*	258	0.00											
184-037	External Trim Coil Procurement/Fab	87	04OCT05	13FEB06	258	275,015.70											
184-015	Title III WBS 133 Rxt Trim Coils	147	01AUG05	06MAR06	907	57,039.77											
<b>134 - Conventional Coil Local I&amp;C</b>																	
<b>Job: 1303 - WBS 13 Final Design -KALISH</b>																	
133-011	Title II design WBS 134 Conv Coil I&C	125	06APR05	30SEP05	187	15,198.40											
<b>Job: 1304 - WBS 13 Procure/Fab/Title III-KALISH</b>																	
<b>TF/PF Local I&amp;C</b>																	
133-015	Title III WBS 134 Conv Coil I&C	130	05JUN06*	07DEC06	714	3,696.20											
133-037	Conv Coil I&C WBS 134 Proc & Install	130	05JUN06*	07DEC06	185	66,610.52											
<b>14 - Modular Coils</b>																	
<b>141 - Modular Coil Winding Form</b>																	
<b>Job: 1401 - Mod Coil Prel.Dsn-WILLIAMSON</b>																	
<b>FY03 Actual Cost</b>																	
1401-002	Apr-Sept MIE Cost ORNL	64*	01APR03A	30SEP03A		303,040.00											
1401-003	Apr-Sept MIE Cost PPPL	64*	01APR03A	30SEP03A		0.00											
<b>Job: 1402 - Mod.Coil Analyses-WILLIAMSON</b>																	
<b>FY03 Actual Cost</b>																	
1402-002	Apr-Sept MIE Cost ORNL	64*	01APR03A	30SEP03A		84,220.00											
1402-003	Apr-Sept MIE Cost PPPL	64*	01APR03A	30SEP03A		154,920.00											
<b>Job: 1403 - WBS 14 Final Design-WILLIAMSON</b>																	
<b>PDR/PBR Prep</b>																	
1403-04	Plan response to PDR chits	23	01OCT03A	31OCT03A		2,573.80											
1403-05	Prepare FY04 WP / WAF / Checklists	21	08OCT03A	14OCT03A		2,573.80											
1403-06	Prepare documents for PDR closeout	52*	15OCT03A	24DEC03A		10,295.20											
1403-07	Prepare PBR documentation	19*	31OCT03A	18NOV03A		2,573.80											
1403-08	Performance Baseline Review	0		18NOV03A		0.00											
<b>Requirements/Config and Interfaces</b>																	
1403-10	Review, revise, and approve SRD	95*	15OCT03A	27FEB04	166	2,573.80											
1403-11	Prepare assembly / interface drawings for ICDS	94*	15OCT03A	26FEB04	161	10,295.20											
1403-12	Finalize and approve all ICDS	10*	02FEB04*	13FEB04	170	5,147.60											




Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Gantt Chart											
							FY04	FY05	FY06	FY07	FY08	FY09						
1403-13	Finalize winding pack ref xsec, conductor dims	45*	15OCT03A	26NOV03A		2,573.80	Williamson=20											
1403-14	Revise winding form and windings/asm models	75*	15OCT03A	30JAN04A		41,309.49	Hargrove, Williamson, Lovett=320											
1403-15	Prepare winding form asm / detail drawings	117*	03NOV03A	16APR04	1,399	68,205.70	Lovett, Hargrove, =320 ecp6 addl port config= +210hr											
<b>Analysis - Thermal &amp; Electrical</b>																		
1403-21	Document electrical, insulation parameters	56*	15OCT03A	19DEC03A		2,573.80	Williamson=20											
1403-22	Update thermal analysis to current WP design	51*	22OCT03A	19DEC03A		5,147.60	Williamson=40											
1403-23	Update thermo-hydraulic analysis of coils	58*	01DEC03A	23FEB04	179	6,428.00	Dahlgren=40											
1403-25	Check EM loads calculation for ref scenarios	43*	02FEB04*	31MAR04	152	5,147.60	Williamson=40											
1403-26	Perform scan of EM fault load conditions	85*	01DEC03A	31MAR04	152	10,295.20	Williamson=80											
1403-26.1	Check thermal & electrical calculations	43*	02FEB04*	31MAR04	152	10,295.20	Williamson=80											
1403-27	Prepare thermal, electrical analysis report	63	02FEB04*	28APR04	132	20,590.40	Williamson=160											
<b>Analysis - Structural</b>																		
141TITLE2P	PDR #1,4,26 Access, Tolerance Budget, Bolting	78*	02FEB04*	19MAY04	1,352	26,896.21	Tomlem=209											
1403-29	Complete ANSYS model of coil structure asm	140*	15OCT03A	30APR04	130	160,700.00	Fan=80+920											
1403-30	Analyze global stress /defect winding form asm	128*	31OCT03A	30APR04	130	16,070.00	Fan=40+60											
1403-31	Analyze stress in bolted connections	65*	02FEB04*	30APR04	130	6,428.00	Fan=40											
1403-32	Update MECHANICA model of 3 coil types	95*	15OCT03A	27FEB04	175	10,295.20	Freudenberg=80											
1403-33	Anlyz wind pack deflect/stress fo thrml, EM lds	43*	02FEB04*	31MAR04	152	5,147.60	Freudenberg=40											
1403-34	Analyze and optimize clamp locations	43*	02FEB04*	31MAR04	152	5,147.60	Freudenberg=40											
1403-35	Perform supporting analysis for material tests	140*	15OCT03A	30APR04	130	16,727.62	Myatt=80+25											
1403-36	Update EM loads for reference scenarios	67	02FEB04*	04MAY04	128	10,357.62	Myatt=40+25											
1403-37	Perform check og global structural analysis	65*	02FEB04*	30APR04	130	16,727.62	Myatt=80+25											
1403-38	Check nonlinear winding pack analysis	65	02FEB04*	30APR04	130	10,357.62	Myatt=40+25											
1403-39	Analyze gravity, equip, seismic loading	75	02FEB04*	14MAY04	120	6,428.00	Fan=40											
1403-40	Analyze combined loads and fault conditions	23	31MAR04*	30APR04	130	6,428.00	Fan=40											
1403-40.1	Check Structural Calculations	78	02FEB04*	19MAY04	117	10,295.20	Williamson=80											
1403-40.1A	Prepare plate element model of coil structure	65*	02FEB04*	30APR04	130	10,295.20	Williamson=+80											
1403-40.1B	Confirm global deflection/stress, re-inf of shel	64*	03FEB04*	30APR04	130	10,295.20	Williamson=+80											
1403-40.1C	Check all struct calcukations	54*	17FEB04*	30APR04	130	10,295.20	Williamson=+80											
1403-40.2A	Develop multi-filament model of all coils	11*	02FEB04*	16FEB04	144	5,147.60	ORNLEM=+40											
1403-40.2B	Confirm Plasma performance & surface quality	10	17FEB04	01MAR04	154	6,428.00	Ku=+40											
1403-40.2C	Model expected deflections under thermal/EM load	20	17FEB04	15MAR04	144	10,295.20	ORNLEM=+80											
1403-40.2D	Confirm plasma performance & surface quality	20	16MAR04	12APR04	144	12,856.00	Ku=+80											
1403-41	Prepare structural analysis report	47*	12MAR04*	17MAY04	119	20,590.40	Williamson=160											
<b>Winding Form FDR Prep</b>																		
1403-43	Incorporate changes due to prototype fabr	55	16FEB04*	30APR04	130	10,423.89	Williamson, Lovett, Hargrove=80											

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year									
							FY04	FY05	FY06	FY07	FY08	FY09				
1403-44	Prepare final drawings for winding forms, asm	51	20FEB04*	30APR04	130	82,232.91	Jones, Lovett, Hargrove=640									
1403-45	Check and promote models / drawings	15	15APR04*	05MAY04	127	41,180.80	Jones, Williamson, Cole, Lovett, Hargrove=320									
1403-46	Update build-to specification / SOW	58	16FEB04*	05MAY04	127	15,442.80	Williamson=120									
1403-47	Prepare failure modes assessment (FMECA)	58	16FEB04*	05MAY04	127	15,442.80	Williamson=120									
1403-48	Update design basis document	33	01APR04*	17MAY04	119	15,442.80	Williamson=120									
1403-49	Update cost / schedule estimates	55	16FEB04*	30APR04	130	15,442.80	Williamson=120									
1403-49.1	Process ECP for all changes	63	16FEB04*	12MAY04	122	5,147.60	Williamson=40									
1403-50	Prepare FDR documentation / presentations	9	05MAY04*	17MAY04	119	10,295.20	Williamson=80									
1403-50.1	Release EIO/JPP f/flow solidif & mach simulation	0	01MAR04*		171	0.00	▼									
1403-50.2	Prepare Prelim Bid Package	15	13APR04	03MAY04	129	0.00	▼									
1403-50.5	Prelim Bid Package Released	0		03MAY04*	129	0.00	▼									
1403-51	Mod Coil Final Design Review	0		19MAY04*	117	0.00	▼									
C-081.1	JOULE MILESTONE #4 - CD-3 Readiness	0		19MAY04	1,352	0.00	▼ JOULE MILESTONE #4 CD-3 Readiness: complete preparations for CD-3 determination. 4th QUARTER FY04 (FDR's for WBS 12, 1 & 14 Completed)									
<b>Post FDR Update &amp; Planning</b>																
1403-53	Resolve FDR comments and recommendations	15	20MAY04	10JUN04	117	15,442.80	Williamson=120									
1403-54	Final bid package (specs, models, dwgs)	13	24MAY04	10JUN04	117	20,590.40	Williamson, Lovett, Hargrove, Cole, Jones=160									
C-071	Project eval cost proposals & select vendor	40	02JUL04	27AUG04	117	0.00	■									
C-081	Award MCWF Mfg contract (phase funded)	0		27AUG04	117	0.00	▼									
<b>Winding and Assembly Design-Prototype (typeC)</b>																
1403-20	Prototype Mod Coil Winding FDR (Type C Drawings)	0		23APR04	144	0.00	▼									
1403-20.1	Mod Coil Prototype Fabrication Readiness Review	0		05AUG04	142	0.00	▼									
<b>Job:1404-Mod Coil Winding Form R&amp;D-HEITZENROEDER</b>																
<b>FY03 Actual Cost</b>																
1404-002	Apr-Sept YTD MIE Cost ORNL	64*	01APR03A	30SEP03A		100,220.00										
1404-003	Apr-Sept YTD MIE Cost PPPL	64*	01APR03A	30SEP03A		64,670.00										
<b>Prototype Design Issues</b>																
1404-109.J	JOULE MILESTONE #1-Authorize Prototype Fab	0		20OCT03A		0.00	▼ JOULE MILESTONE #1 Authorize Prototype Fabrication - Modular Coil Winding Forms and Vacuum Vessel. 1st QUARTER FY04									
1404-110.J	JOULE MILESTONE #3-Prototype Casting Made	0		26MAR04	67	0.00	▼ JOULE MILESTONE #3 Prototype Casting Made 3rd QUARTER FY04									
1404-65	Fabrication oversight by Project	168*	01OCT03A	26MAY04	1,371	75,246.60	■ Nelson, Heitzenroeder, =528									
<b>EIO Subcontract (\$04341F)</b>																
1404-100	EIO-Cost FY03	10	01MAY03A	30SEP03A		307,170.24	41=\$254.28									
1404-110X	EIO-forecast increase	176*	21OCT03A	28JUN04	1,344	293,600.00	4e=293.6									
1404-68	Authorization by PPPL	0		20OCT03A		0.00	▼									

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule								
							FY04	FY05	FY06	FY07	FY08	FY09			
1404-69	Oversight / reporting (4.1 & 4.2)	138*	21OCT03A	04MAY04	1,387	67,865.98	41=\$ 53.27 k <encumbered FY03>								
1404-70	Process model	27	21OCT03A	26NOV03A		44,590.00	41=\$ 35 k <encumbered FY03>								
1404-71	Build pattern	42*	01DEC03A	21JAN04A		44,590.00	41=\$ 35 k <encumbered FY03>								
1404-72	EIO Make casting	16*	22JAN04A	12FEB04	98	44,590.00	41=\$ 35 k <encumbered FY03>								
1404-73	Inspect, repair, heat treat	31*	13FEB04	26MAR04	140	44,590.00	41=\$ 35 k <encumbered FY03>								
1404-74	Ship, setup for machining	10	26APR04	07MAY04	120	60,897.20	41=\$ 47.8 k <encumbered FY03>								
1404-75	Perform machining	30*	10MAY04*	21JUN04	120	74,274.10	41=\$ 4.65k; 4e=\$ 68.35 k <encumbered FY03>								
1404-76	Final inspection	2	22JUN04	23JUN04	120	7,500.00	4e=\$ 7.5 k <encumbered FY03>								
1404-77	Ship to PPPL	3	24JUN04	28JUN04	120	2,570.00	4e=\$ 2.57 k <encumbered FY03>								
1404-77.1	EIO-Deliver Prototype MCWF	0		28JUN04	120	0.00	41=\$75k								
1404-78	Flow solid & machine simulation for Production	34*	13MAY04*	30JUN04	118	40,000.00	41=\$40k increase for production flow solidification model								
1404-79	Final MIT/QA plan	30	20MAY04	01JUL04	117	19,990.00	4e=\$ 19.99 k R367405								
1404-80	EIO MCWF Fixed price proposal	30	20MAY04	01JUL04	117	15,237.04	4e=\$ 11.96 k R367405								
1404-80.1	EIO MCWF Fixed price proposal Received	0		01JUL04	117	0.00	41=\$75k								
1404-80.2	Produce First Production Type C Casting (ECP 8)	61	01JUL04*	27SEP04	1,286	75,000.38	41=\$75k								
<b>JP Pattern Subcontract (S04340F)</b>															
1404-200	JPP- cost FY03	10	01MAY03A	30SEP03A		92,170.40	41=\$75.3 k								
1404-82	Authorization by PPPL to begin Fabrication	0		20OCT03A		0.00									
1404-83	Oversight / reporting	138*	21OCT03A	04MAY04	1,387	58,425.64	41=\$ 45.86 k <encumbered FY03>								
1404-84	Process model	125*	21OCT03A	15APR04	1,400	62,438.74	41=\$ 49.01 k <encumbered FY03>								
1404-85	Build pattern	72*	01DEC03A	12MAR04	67	47,380.06	41=\$ 25.98 k <encumbered FY03>								
1404-86	JPP Make casting	10*	15MAR04	26MAR04	67	16,434.60	41=\$ 12.9 k <encumbered FY03>								
1404-87	Inspect, repair, heat treat	22*	29MAR04	27APR04	118	119,998.06	41=\$ 94.19 k <encumbered FY03>								
1404-88	Ship, setup for machining	3*	28APR04	30APR04	118	1,579.76	41=\$ 1.24 k <encumbered FY03>								
1404-89	Perform machining	37*	03MAY04	23JUN04	118	281,450.26	41=\$ 194.49 k; 4e=\$ 33.67 k <encumbered FY03>								
1404-90	Final inspection	3*	24JUN04	28JUN04	118	8,710.00	4e=\$ 8.71 k <encumbered FY03>								
1404-210X	PPPL add'l-forecast increase	1	28JUN04	28JUN04	118	200,000.00	4e=200								
1404-91	Ship to PPPL	2	29JUN04	30JUN04	118	3,120.00	4e=\$ 3.12 k <encumbered FY03>								
1404-91.1	JPP-Deliver Prototype MCWF	0		30JUN04	118	0.00	41=\$75k								
1404-92	Flow solid & machine simulation for Production	34*	13MAY04*	30JUN04	118	40,000.00	41=\$40k increase for production flow solidification model								
1404-93	Final MIT/QA plan	30	20MAY04	01JUL04	117	8,170.00	4e = 8.17 R367405								
1404-94	JPP MCWF Fixed price proposal	30	20MAY04	01JUL04	117	12,150.00	4e= 12.15 R367405								
1404-94.1	JPP MCWF Fixed price proposal	0		01JUL04	117	0.00	41=\$75k								

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 ECP5 Schedule
   
 x405
   
 Progress Bar
   
 Critical Activity

ECP8

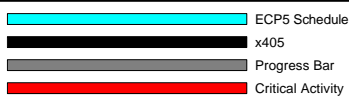
NCSX Baseline  
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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Gantt Chart											
							FY04	FY05	FY06	FY07	FY08	FY09						
<b>Job: 1411 - Modular Coil Casting Fabrication</b>																		
<b>Type 1 Castings</b>																		
172-031	Title III engr	589*	24MAY04*	29SEP06	761	289,943.89	Heitzenroeder =342hr; Williamson =1066hr ; travel=\$48k											
172-037	MCWF FAB ba=6/3.22/1.02 BO=.4/2.6/1.84	409*	30AUG04	11APR06	117	5,274,392.53	41=500\$k ; 4E=4,339.3 ; 35=48\$k ; BA= 6/3.22/1.02 BO=.4/2.6/1.84											
C-121	Castings-C-1-1 (1st MCC form delivered)	75	30AUG04	15DEC04	117	0.00												
C-121.1	First MCWF Delivered	0		15DEC04	119	0.00												
C-181	Castings-C-4-1	18	20DEC04	21JAN05	117	0.00												
C-261	Castings-C-7-2	18	26JAN05	18FEB05	117	0.00												
C-321	Castings-C-10-2	18	23FEB05	18MAR05	117	0.00												
C-401	Castings-C-13-3	18	23MAR05	15APR05	117	0.00												
C-461	Castings-C-16-3	18	20APR05	13MAY05	117	0.00												
<b>Type 2 Castings</b>																		
C-101	Castings-Production casting tooling prep type MI	65	16DEC04	25MAR05	154	0.00												
C-141	Castings-A-2-1	18	18MAY05	13JUN05	117	0.00												
C-201	Castings-A-5-1	18	14JUN05	08JUL05	117	0.00												
C-281	Castings-A-8-2	17	13JUL05	04AUG05	117	0.00												
C-341	Castings-A-11-2	17	09AUG05	31AUG05	117	0.00												
C-421	Castings-A-14-3	17	06SEP05	28SEP05	117	0.00												
C-481	Castings-A-17-3	17	03OCT05	25OCT05	117	0.00												
<b>Type 3 Castings</b>																		
C-102	Castings-Production casting tooling prep type BU	65	28MAR05	27JUN05	201	0.00												
C-161B	Castings-B-3-1	17	28OCT05	21NOV05	117	0.00												
C-221B	Castings-B-6-1	17	28NOV05	20DEC05	117	0.00												
C-301B	Castings-B-9-2	17	23DEC05	24JAN06	117	0.00												
C-361B	Castings-B-12-2	17	25JAN06	16FEB06	117	0.00												
C-441B	Castings-B-15-3	17	21FEB06	15MAR06	117	0.00												
C-501B	Castings-B-18-3 (last MCC form delivered)	17	20MAR06	11APR06	117	0.00												
C-501B1	Last MCWF Delivered	0		11APR06	892	0.00												
<b>142 - Modular Coil Windings and Assembly</b>																		
<b>Job: 1403 - WBS 14 Final Design-WILLIAMSON</b>																		
<b>Requirements/Config and Interfaces</b>																		
1403-03	Re-estimate of dsn for R&D winding details	118*	15OCT03A	31MAR04	1,411	0.00												
<b>Winding and Assembly Design-Prototype (typeC)</b>																		
1403-100	Winding & Insulation Dwgs (8)-Prototype	60	02JAN04A	23APR04	144	5,404.98	Lovett= 21 ; Hargrove= 21											
1403-101	Leads & crossover Dwgs (10)-Prototype	60	02JAN04A	23APR04	144	6,691.88	Lovett= 26 ; Hargrove= 26											
1403-102	G-10 Filler Dwgs (24)-Prototype	60	02JAN04A	23APR04	144	16,214.94	Lovett= 63 ; Hargrove= 63											

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04									FY05									FY06									FY07									FY08									FY09								
1403-103	Clamp Dwgs (5)-Prototype	60	02JAN04A	23APR04	144	3,345.94																																																						
1403-104	Chill Plate Dwgs (66)-Prototype	60	02JAN04A	23APR04	144	44,526.74																																																						
1403-105	Installation Dwgs (1)-Prototype	60	02JAN04A	23APR04	144	772.14																																																						
1403-106	Cooling Schematic Dwgs (1)-Prototype	60	02JAN04A	23APR04	144	772.14																																																						
1403-107	Electrical Schematic Dwgs (1)-Prototype	60	02JAN04A	23APR04	144	772.14																																																						
1403-108	I&C Dwgs (1) -Prototype	60	02JAN04A	23APR04	144	772.14																																																						
1403-60	Update design basis document	30	15MAR04	23APR04	144	15,442.80																																																						
1403-59	Update build-to specifications	30	24JUN04	05AUG04	142	15,442.80																																																						
<b>Winding and Assembly Design-Type C</b>																																																												
1403-200	Winding & Insulation Dwgs (8)-Type C Updates	20	29JUL04	25AUG04	122	1,029.52																																																						
1403-201	Leads & crossover Dwgs (10)-Type C Updates	20	29JUL04	25AUG04	122	1,286.90																																																						
1403-202	G-10 Filler Dwgs (24)-Type C Updates	20	29JUL04	25AUG04	122	3,088.56																																																						
1403-203	Clamp Dwgs (5)-Type C Updates	20	29JUL04	25AUG04	122	643.45																																																						
1403-204	Chill Plate Dwgs (66)-Type C Updates	20	29JUL04	25AUG04	122	8,493.54																																																						
1403-205	Installation Dwgs (1)-Type C Updates	20	29JUL04	25AUG04	122	257.38																																																						
1403-206	Cooling Schematic Dwgs (1)-Type C Updates	20	29JUL04	25AUG04	122	257.38																																																						
1403-207	Electrical Schematic Dwgs (1)-Type C Updates	20	29JUL04	25AUG04	122	257.38																																																						
1403-208	I&C Dwgs (1) -Type C Updates	20	29JUL04	25AUG04	122	257.38																																																						
1403-58C	Check and promote models / drawings -Type C	20	29JUL04	25AUG04	122	17,373.15																																																						
1403-61	Update cost / schedule estimates	30	15JUL04	25AUG04	122	15,442.80																																																						
1403-62	Prepare FDR documentation / presentations	20	29JUL04	25AUG04	122	10,295.20																																																						
1403-70	FDR - Production Type C Mod Coil Winding	0		25AUG04	122	0.00																																																						
1403-70.05	Update MIT/QA Plans for Type C Winding Fab	20	19NOV04	20DEC04	122	2,817.40																																																						
1403-70.1	Fab Readiness Rww - Production Type C MC Winding	0		20DEC04	122	0.00																																																						
<b>Winding and Assembly Design-Type A</b>																																																												
1403-300	Winding & Insulation Dwgs (8)-Type A	95	14JUL04	24NOV04	128	5,614.98																																																						
1403-301	Leads & crossover Dwgs (10)-Type A	95	14JUL04	24NOV04	128	6,951.90																																																						
1403-302	G-10 Filler Dwgs (24)-Type A	95	14JUL04	24NOV04	128	16,844.96																																																						
1403-303	Clamp Dwgs (5)-Type A	95	14JUL04	24NOV04	128	3,475.94																																																						
1403-304	Chill Plate Dwgs (66)-Type A	95	14JUL04	24NOV04	128	46,256.82																																																						
1403-305	Installation Dwgs (1)-Type A	95	14JUL04	24NOV04	128	802.14																																																						
1403-306	Cooling Schematic Dwgs (1)-Type A	95	14JUL04	24NOV04	128	802.14																																																						
1403-307	Electrical Schematic Dwgs (1)-Type A	95	14JUL04	24NOV04	128	802.14																																																						
1403-308	I&C Dwgs (1) -Type A	95	14JUL04	24NOV04	128	802.14																																																						
1403-58A	Check and promote models / drawings -Type A	15	04NOV04	24NOV04	128	19,017.45																																																						

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule											
							FY04	FY05	FY06	FY07	FY08	FY09						
1403-71	FDR Rvw Production Type A Mod Coil Winding	0		24NOV04	128	0.00												
1403-71.05	Update MIT/QA Plans for Type C Winding Fab	20	04MAY05	01JUN05	128	2,817.40												
1403-71.1	Fab Readiness Review - Production Type A	0		01JUN05	128	0.00												
<b>Winding and Assembly Design-Type B</b>																		
1403-400	Winding & Insulation Dwgs (8)-Type B	95	27DEC04	09MAY05	125	5,916.54												
1403-401	Leads & crossover Dwgs (10)-Type B	95	27DEC04	09MAY05	125	7,325.24												
1403-402	G-10 Filler Dwgs (24)-Type B	95	27DEC04	09MAY05	125	17,749.62												
1403-403	Clamp Dwgs (5)-Type B	95	27DEC04	09MAY05	125	3,662.62												
1403-404	Chill Plate Dwgs (66)-TypeB	95	27DEC04	09MAY05	125	48,741.02												
1403-405	Installation Dwgs (1)-Type B	95	27DEC04	09MAY05	125	845.22												
1403-406	Cooling Schematic Dwgs (1)-Type B	95	27DEC04	09MAY05	125	845.22												
1403-407	Electrical Schematic Dwgs (1)-Type B	95	27DEC04	09MAY05	125	845.22												
1403-408	I&C Dwgs (1) -Type B	95	27DEC04	09MAY05	125	845.22												
1403-58B	Check and promote models / drawings -Type B	15	19APR05	09MAY05	125	19,017.45												
1403-72	Final Design Review Production Type B	0		09MAY05	125	0.00												
1403-72.05	Update MIT/QA Plans for Type C Winding Fab	20	13OCT05	09NOV05	125	2,898.20												
1403-72.1	Fab Readiness Review - Production Type B	0		09NOV05	125	0.00												
142TITLE3	Titel III Design-Coil Winding & Assembly	498*	01OCT04*	29SEP06	761	423,168.36												
<b>Job: 1405-Mod Coil Winding R&amp;D Prep-CHRZANOWSKI</b>																		
<b>FY03 Actual Cost</b>																		
1405-002	Apr-Sep YTD MIE Cost ORNL	64*	01APR03A	30MAY03A		0.00												
1405-003	Apr-Sep YTD MIE Cost PPPL	64*	01APR03A	30MAY03A		168,070.00												
<b>Job: 1406 - Mod. Coil Winding R&amp;D-CHRZANOWSKI</b>																		
<b>FY03 Actual Cost</b>																		
1406-0002	Apr-Sep YTD MIE Cost ORNL	64*	01APR03A	30SEP03A		0.00												
1406-0003	Apr-Sep YTD MIE Cost PPPL	64*	01APR03A	30SEP03A		831,120.00												
<b>Oversight &amp; Supervision</b>																		
1406-000	Supervision & Oversight	180*	01OCT03A	22JUN04	1,312	117,218.40												
1406-047	Prepare R&D report	17	23JUN04	16JUL04	1,312	0.00												
1406-048	Testing & Strain Gauge Design	20	01OCT03A	31OCT03A		24,253.50												
<b>Keystone R&amp;D</b>																		
1406-001	Purchase 10 spools conductor (twisted racetrack)	40*	03NOV03A	23DEC03A		7,644.00												
1406-003	Purchase 8 spools conductor (long twisted windin	40*	03NOV03A	23DEC03A		7,644.00												
1406-005	Purchase epoxy & Insulation	76*	03NOV03A	27FEB04	213	6,370.00												
1406-010	Keystone Test for New Conductor	31*	02JAN04A	13FEB04	194	6,144.00												
1406-011	Purchase add'l copper Conductor	35	02FEB04	19MAR04	1,385	8,918.00												
1406-012	Repeat Keystone Test for New Conductor	10	22MAR04	02APR04	1,385	6,144.00												

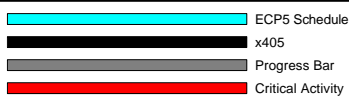


Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year									
							FY04	FY05	FY06	FY07	FY08	FY09				
<b>Twisted Racetrack Design (Williamson)</b>																
1406-097	Verify Conductor Dims	3	01OCT03A	03OCT03A		2,573.80	Williamson=20									
1406-098	Complete Drawings of Casting	21	13OCT03A	26NOV03A		15,442.80	lovett,jones=120									
1406-099	Review/Approve Casting Drawings	10	26NOV03A	26NOV03A		15,442.80	lovett,jones,cole,williamson=120									
1406-101	Prepare Clamp & Chill Plate detail Drawings	80	24NOV03A	19MAR04	168	20,590.40	lovett=260									
1406-102	Review/Approve Clamp& Chill Plate Dwgs	10	22MAR04	02APR04	168	15,442.80	lovett,jones,cole,williamson=120									
1406-103	Twisted Racetrack FDR	0		02APR04	168	0.00										
1406-103.1	Twisted Racetrack Fab Readiness Review	0		16APR04	138	0.00										
1406-104	Prepare Draft of Coil Test Plan	99*	01OCT03A	27FEB04	1,410	5,147.60	nelson=40									
1406-105	Prepare ANSYS thermal analysis model	3	31OCT03A	31OCT03A		2,573.80	williamson=20									
1406-106	Analyze Thermal Behavior due to pulse	3	31OCT03A	31OCT03A		2,573.80	williamson=20									
1406-107	Calculate EM Loads due to max current	3	03NOV03A	26NOV03A		5,147.60	williamson=40									
1406-108	Prep MECHANICA Struct Analysis Model	3	03NOV03A	26NOV03A		5,147.60	freudenberg=40									
1406-109	Analyze Stress/deflection due to cooldown,pulse	5	03NOV03A	26NOV03A		5,147.60	freudenberg=40									
1406-110	Finalize, Approve coil test plan	58*	01DEC03A	27FEB04	231	10,295.20	nelson=80									
<b>Twisted Racetrack Fabrication &amp; Winding (Chrzano)</b>																
1406-014	Bid, Evaluate and Award Casting to EIO or JPP	28	01DEC03A	23DEC03A		0.00										
1406-016	Procure casting from EIO (new scope)	43*	02FEB04	31MAR04	160	127,387.26	41=\$60 + \$40k= \$100k PE4371									
1406-016.1	Inspect & Measure Casting	10	01APR04	14APR04	160	0.00										
1406-016.5	PPPL Fabricate chill plates& clamps	30	05APR04*	14MAY04	168	22,992.00	Machinist =160 hrs; eb/tb=80									
1406-017	Wind twisted racetrack	20	17MAY04*	14JUN04	138	24,576.00	em/tb=320 hrs									
1406-018	Mold & VPI twisted racetrack	18	14JUL04*	06AUG04	118	18,432.00	em/tb=240 hrs									
1406-019	Setup twisted racetrack coil in test stand	2	09AUG04	10AUG04	118	6,538.40	em/tb=48; ee/tb=32; ee/sm=4									
1406-020	Begin Testing of Twisted RT in Coil test Stand	0	11AUG04		118	0.00										
1406-021	Perform tests	5	11AUG04	17AUG04	118	30,853.60	em/tb=128; ee/tb=56; Hatcher=40; Gettelfinger=40; Gemhardt=40									
1406-023	Section and Evaluate coil turns	5	18AUG04	24AUG04	118	0.00										
<b>Conductor Property Testing</b>																
1406-029	Fab New Specimen Molds	60*	01DEC03A	25FEB04	161	22,992.00	Machinist=160; em/tb=80									
1406-030	Fab & Pot samples	30*	26JAN04A	05MAR04	154	36,864.00	em/tb=480									
1406-031	Prep fixtures and test equipt	67*	03NOV03A	16FEB04	147	69,234.00	Kozub=160; Jurzynski=160 Machinist=240; 41=\$1k									
1406-032	Test samples	31	17FEB04*	30MAR04	147	64,032.00	Kozub=240; Jurzynski=240									
1406-033	Prepare Test report	15	17MAR04*	06APR04	147	12,856.00	Zaltz=80									
1406-034	Mod Coil Conductor/Insulation FDR	0		13APR04*	142	0.00										
<b>"inchworm" Twisted Winding</b>																
1406-119	Join straight sections w/2 end loops	79*	01OCT03A	30JAN04A		31,590.00	welder=150; machinist=150									
1406-120	Wind Conductor	19*	30JAN04A	25FEB04	1,412	18,432.00	em/tb=240									



Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule											
							FY04	FY05	FY06	FY07	FY08	FY09	FY04	FY05	FY06	FY07	FY08	FY09
1406-040	JOULE MILESTONE #2-Begin winding on 3D surface	0	30JAN04A			0.00	JOULE MILESTONE #2 Initiate Winding Process on a 3D Surface & assess Implications f/ Design and Fabrication. 2nd QUARTER FY04											
<b>Job:1408-Mod Coil Winding Supplies-CHRZANOWSKI</b>																		
<b>FY03 Actual Cost</b>																		
1408-001	Apr-Sep YTD MIE Cost PPPL	64	01APR03A	30SEP03A		29,790.00												
<b>Epoxy</b>																		
1408-111	Epoxy -Spec & Requisition	10	14APR04	27APR04	162	0.00												
1408-113	Epoxy -Bid & Award	30	28APR04	09JUN04	162	0.00												
1408-115	Epoxy -Delivery for Prototype	20	10JUN04	08JUL04	162	6,370.00	M&S= \$ 5 k											
1408-117	Epoxy -1st Delivery for Production	20	21DEC04	19JAN05	122	19,380.00	M&S= \$ 15 k											
1408-119	Epoxy -2nd Delivery for Production	20	21FEB05	18MAR05	125	19,380.00	M&S= \$ 15 k											
1408-121	Epoxy -3rd Delivery for Production	20	16MAY05	13JUN05	124	19,380.00	M&S= \$ 15 k											
1408-123	Epoxy -4th Delivery for Production	20	04AUG05	31AUG05	124	19,380.00	M&S= \$ 15 k											
1408-125	Epoxy -5th Delivery for Production	20	25OCT05	21NOV05	125	19,575.00	M&S= \$ 15 k											
1408-127	Epoxy -6th Delivery for Production	20	20JAN06	16FEB06	118	19,575.00	M&S= \$ 15 k											
<b>Insulation for conductor</b>																		
1408-101	Insulation-Spec & Requisition	5	14APR04	20APR04	142	0.00												
1408-103	Insulation-Bid & Award	30	21APR04	02JUN04	142	0.00												
1408-105	Insulation-Delivery for Prototype	30	03JUN04	15JUL04	142	3,822.00	M&S= \$3 k											
1408-107	Insulation-Delivery for Production	65	16JUL04	15OCT04	166	83,980.00	M&S= \$ 65 k											
<b>Copper Conductor</b>																		
1408-141	Copper Conductor -Spec & Requisition	10	14APR04	27APR04	147	0.00												
1408-143	Copper Conductor -Bid & Award	30	28APR04	09JUN04	147	0.00												
1408-143.1	Mod Coil Copper Conductor Awarded	0		09JUN04	147	0.00												
1408-145	Copper Conductor -Delivery for Prototype	35	17JUN04	05AUG04	142	15,288.00	M&S= \$ 12 k											
1408-147	Copper Conductor -Delivery for Production	50	05NOV04	19JAN05	122	301,036.00	M&S= \$ 240 k less \$7k in 1406											
<b>Chill Plates and Clamps</b>																		
1408-131	Chill plates & clamps -Spec & Requisition	10	26APR04	07MAY04	144	0.00												
1408-133	Chill plates & clamps -Bid & Award	20	12MAY04	09JUN04	142	0.00												
1408-135	Chill plates & clamps -Deliver Prototype (type C)	40	10JUN04	05AUG04	142	15,288.00	M&S= \$ 12 k											
1408-137	Chill plates & clamps Production Type C	100	26AUG04	19JAN05	122	92,700.00	M&S= \$ 72 k											
1408-138	Chill plates & clamps Production Type A	100	09FEB05	29JUN05	128	93,024.00	M&S= \$ 72 k											
1408-139	Chill plates & clamps Production Type B	100	21JUL05	09DEC05	125	93,473.28	M&S= \$ 72 k											
<b>G-11 Filler</b>																		
1408-151	G-11 Filler Fabrication - Prototype (type c)	65	05MAY04	05AUG04	142	35,547.20	M&S= \$ 1 k + \$15k machinist=144											
1408-153	G-11 Filler Fabrication - Production Type C	75	01OCT04	19JAN05	122	108,300.00	M&S= \$ 100k machinist=1000											

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Timeline																	
							FY04	FY05	FY06	FY07	FY08	FY09	FY04	FY05	FY06	FY07	FY08	FY09						
1408-154	G-11 Filler Fabrication - Production Type A	150	29NOV04	29JUN05	128	108,300.00																		
1408-155	G-11 Filler Fabrication - Production Type B	150	10MAY05	09DEC05	125	108,876.00																		
<b>Lead hardware</b>																								
1408-161	Lead hardware Fabrication - Prototype (type c)	65	05MAY04	05AUG04	142	32,630.00																		
1408-163	Lead hardware Fabrication - Production Type C	80	22OCT04	16FEB05	122	51,984.00																		
1408-164	Lead hardware Fabrication - Production Type A	80	09MAR05	29JUN05	128	51,984.00																		
1408-165	Lead hardware Fabrication - Production Type B	80	18AUG05	09DEC05	125	52,502.40																		
<b>Other</b>																								
1408-171	Misc supplies/mat'l's for Prototype	50	26MAY04	05AUG04	142	5,096.00																		
1408-173	Misc supplies/mat'l's for Production Windings	50	01OCT04*	13DEC04	147	32,300.00																		
1408-181	VPI Supplies for Prototype(mold epoxy,& hardware	50	26MAY04	05AUG04	142	10,213.60																		
1408-183	VPI Supplies -Epoxy & tape for Production 40%	50	20JUL04*	28SEP04	199	17,836.00																		
1408-184	VPI Supplies -Epoxy & tape for Production 60%	50	01OCT04*	13DEC04	1,233	28,424.00																		
1408-185	VPI Supplies -Valves & Tubing 40%	50	20JUL04*	28SEP04	199	20,384.00																		
1408-186	VPI Supplies -Valves & Tubing 60%	50	01OCT04*	13DEC04	1,233	31,008.00																		
<b>Job: 1410 Mod Coil Prototype Winding-CHRZANOWSKI</b>																								
<b>Prototype Winding</b>																								
141-3-44	Oversight and materials/supplies	186	29MAR04	20DEC04	137	131,483.38																		
141-3-44.9	Begin Winding on Prototype MCVF	0	06AUG04*		137	0.00																		
141-3-45	Wind & VPI prototype coil (stations 1 thru 5)	87	06AUG04*	09DEC04	137	184,736.66																		
141-3-46	Test prototype coil (station 6)	7	10DEC04	20DEC04	137	28,850.00																		
141-3-45.1	Complete Prototype Winding (SOW 4.9)	0		20DEC04*	137	0.00																		
141-3-45.2	Final Procedures & Process Plan (SOW 4.10)	30	05NOV04	20DEC04	137	0.00																		
<b>Job: 1421 - Type C Winding/VPI</b>																								
<b>Labor</b>																								
171-040	Winding Oversight (LOE)	442	07DEC04*	14SEP06	772	635,298.88																		
171-041	Modular Coil Winding (18 coils) (see detail sch)	391*	20JAN05	08AUG06	117	3,138,723.18																		
171-041CT	PBR Increment for cold testing	353*	15MAR05	08AUG06	117	430,218.41																		
<b>Period 1</b>																								
P1-001	Prep casting C-1-1 (station 1)	12	04JAN05	19JAN05	122	0.00																		
P1-011	Wind coil C-1-1 (station 2)	38	20JAN05*	14MAR05	122	0.00																		
P1-021	VPI,Test &Ship C-1-1 (1st MCC fabr) (sta 4/5/6)	34	15MAR05	29APR05	167	0.00																		
P1-021.1	Complete First Mod Coil Fabrication	0		29APR05	1,117	0.00																		
P1-091	Prep casting C-4-1 (station 1)	12	24JAN05	08FEB05	127	0.00																		
P1-101	Wind coil C-4-1 (station 3)	37	16FEB05*	07APR05	122	0.00																		
P1-111	VPI, Test & Ship C-4-1 (station 4/5/6)	34	08APR05	25MAY05	164	0.00																		




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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Timeline														
							FY04	FY05	FY06	FY07	FY08	FY09									
<b>Period 2</b>																					
P2-001	Receive casting C7-2	12	21FEB05	08MAR05	129	0.00															
P2-011	Wind coil BA-7-2 (station 2)	37	15MAR05	04MAY05	125	0.00															
P2-021	VPI, Test & Ship C-7-2 (station 4/5/6)	34	05MAY05	22JUN05	160	0.00															
P2-091	Receive casting C-10-2	12	21MAR05	05APR05	124	0.00															
P2-101	Wind coil C-10-2 (station 3)	37	08APR05	31MAY05	122	0.00															
P2-111	VPI, Test & Ship C-10-2 (station 4/5/6)	34	01JUN05	19JUL05	157	0.00															
<b>Period 3</b>																					
P3-001	Receive casting C-13-3	12	18APR05	03MAY05	126	0.00															
P3-011	Wind coil C-13-3 (station 2)	37	05MAY05	27JUN05	125	0.00															
P3-021	VPI, test & ship C-13-3 (station 4/5/6)	34	28JUN05	15AUG05	153	0.00															
P3-091	Receive casting C-16-3	12	16MAY05	01JUN05	121	0.00															
P3-101	Wind coil C-16-3 (station 3)	37	02JUN05	25JUL05	121	0.00															
P3-111	VPI, test & ship C-16-3 (station 4/5/6)	34	26JUL05	12SEP05	149	0.00															
<b>Job: 1422 - Type A Winding/VPI</b>																					
<b>Period 1</b>																					
P1-031	Receive casting A-2-1	12	14JUN05	29JUN05	123	0.00															
P1-041	Wind coil A-2-1 (station 2)	37	30JUN05	22AUG05	123	0.00															
P1-051	VPI, Test & Ship A-2-1 (station 4/5/6)	34	23AUG05	10OCT05	144	0.00															
P1-121	Receive casting A-5-1	12	11JUL05	26JUL05	120	0.00															
P1-131	Wind coil A-5-1 (station 3)	37	27JUL05	16SEP05	120	0.00															
P1-141	VPI, Test & Ship A-5-1 (station 4/5/6)	34	19SEP05	03NOV05	141	0.00															
<b>Period 2</b>																					
P2-031	Receive casting A-8-2	12	05AUG05	22AUG05	123	0.00															
P2-041	Wind coil A-8-2 (station 2)	37	23AUG05	13OCT05	123	0.00															
P2-051	VPI, Test & Ship A-8-2 (station 4/5/6)	34	14OCT05	02DEC05	137	0.00															
P2-121	Receive casting A-11-2	12	01SEP05	19SEP05	119	0.00															
P2-131	Wind coil A-11-2 (station 3)	37	20SEP05	09NOV05	119	0.00															
P2-141	VPI, test & Ship A-11-2 (station 4/5/6)	34	10NOV05	06JAN06	133	0.00															
<b>Period 3</b>																					
P3-031	Receive casting A-14-3	12	29SEP05	14OCT05	122	0.00															
P3-041	Wind coil A-14-3 (station 2)	37	17OCT05	08DEC05	122	0.00															
P3-051	VPI, Test & ship A-14-3 (station 4/5/6)	34	09DEC05	02FEB06	129	0.00															
P3-121	Receive casting A-17-3	12	26OCT05	10NOV05	118	0.00															
P3-131	Wind coil A-17-3 (station 3)	37	11NOV05	12JAN06	118	0.00															
P3-141	VPI, Test & ship A-17-3 (station 4/5/6)	34	13JAN06	01MAR06	125	0.00															

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year										
							FY04	FY05	FY06	FY07	FY08	FY09					
<b>Job: 1423 - Type B Winding/VPI</b>																	
<b>Period 1</b>																	
P1-061	Receive casting B-3-1	12	22NOV05	09DEC05	121	0.00											
P1-071	Wind coil B-3-1 (station 2)	37	12DEC05	08FEB06	121	0.00											
P1-081	VPI,Test & Ship B-3-1 (station 4/5/6)	34	09FEB06	28MAR06	121	0.00											
P1-151	Receive casting B-6-1	12	21DEC05	13JAN06	117	0.00											
P1-161	Wind coil B-6-1 (station 3)	37	16JAN06	07MAR06	117	0.00											
P1-171	VPI,Test & Ship B-6-1 (station 4/5/6)	34	08MAR06	24APR06	117	0.00											
<b>Period 2</b>																	
P2-061	Receive casting B-9-2	12	25JAN06	09FEB06	120	0.00											
P2-071	Wind coil B-9-2 (station 2)	37	10FEB06	03APR06	120	0.00											
P2-081	VPI,Test & Ship B-9-2 (station 4/5/6)	34	04APR06	19MAY06	120	0.00											
P2-151	Receive casting B-12-2	12	17FEB06	06MAR06	118	0.00											
P2-161	Wind coil B-12-2 (station 3)	37	08MAR06	27APR06	117	0.00											
P2-171	VPI,Test & Ship B-12-2 (station 4/5/6)	34	28APR06	15JUN06	117	0.00											
<b>Period 3</b>																	
P3-061	Receive casting B-15-3	12	16MAR06	31MAR06	121	0.00											
P3-071	Wind coil B-15-3 (station 2)	37	04APR06	24MAY06	120	0.00											
P3-081	VPI,Test & ship B-15-3 (station 4/5/6)	34	25MAY06	13JUL06	120	0.00											
P3-151	Receive casting B-18-3	12	12APR06	27APR06	117	0.00											
P3-161	Wind coil B-18-3 (station 3)	37	28APR06	20JUN06	117	0.00											
P3-171	Apply Mold, VPI ,Test & ship B-18-3 (last mcc)	34	21JUN06	08AUG06	117	0.00											
<b>143 - Modular Coil Local I&amp;C</b>																	
<b>Job: 1431 - Modular Coil Local I&amp;C</b>																	
174-001	Title I design WBS 143 Mod coil local I&C	30	03OCT05*	11NOV05	316	14,027.29											
174-011	Title II design WBS 143 Mod coil local I&C	30	14NOV05	04JAN06	316	14,027.29											
174-035	Modular Coil local I&C -Procurement	60	05JAN06	29MAR06	321	17,395.65											
174-036	Modular Coil local I&C -Title III	80	05JAN06	26APR06	884	5,529.26											
174-037	Modular Coil local I&C -Install	20	15JAN07*	09FEB07	120	70,223.20											
<b>144 - Modular Coil Winding Facility &amp; Fixtures</b>																	
<b>Job: 1407 -Mod Coil Winding Facility-CHRZANOWSKI</b>																	
<b>FY03 Actual Cost</b>																	
1407-001	Apr-Sep YTD MIE Cost PPPL	64*	01APR03A	30SEP03A		267,550.00											
<b>Oversight and Supervision</b>																	
1407-002	Winding Facility, Tooling, Materials Oversight	186*	01OCT03A	30JUN04	1,323	193,390.20											
1407-003	Winding Facility, Tooling, Design	250*	01OCT03A	30SEP04	1,259	136,128.80											

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Timeline										
							FY04	FY05	FY06	FY07	FY08	FY09					
<b>Autoclave, Turning Fixture &amp; other components</b>																	
1407-005	Domes & cylinder Fab & Deliver (PE4226)	18	01DEC03A	23DEC03A		20,167.42											
1407-006.2	Blower/Elec HW- Fab & Deliver (PE 4218)	18	31OCT03A	31OCT03A		509.60											
1407-008	Remaining Autoclave components-Deliver	49	01OCT03A	09MAR04	182	11,466.00											
1407-011	Fabricate Autoclave	128*	01OCT03A	08APR04	160	163,036.80											
1407-012	Autoclave PTP	5	09APR04	15APR04	160	9,216.00											
1407-013	Autoclave PTP Complete	0		15APR04	179	0.00											
1407-100	Fabricate turning fixtures and coil supports	145*	01DEC03A	30JUN04	162	305,500.00											
1407-100.2	Fabr turning fixt&coil spts *2nd line*	64	01JUL04	30SEP04	211	179,400.00											
1407-098	Final Dwg for winding clamps	58*	01DEC03A	27FEB04	162	0.00											
1407-099	Bid,Evaluate & Award Winding Clamps??????	16	01MAR04*	22MAR04	162	0.00											
1407-110	Fabricate Winding clamp sets	71*	23MAR04*	30JUN04	162	80,976.00											
1407-110.2	Fabr Winding clamp sets (100)**2nd line**	64	01OCT04*	11JAN05	147	40,027.50											
1407-115	Fabricate Conductor payout spool system	107*	02FEB04*	30JUN04	162	94,258.40											
1407-115.2	Fabr Cond payout spool sys* 2nd line*	64	01JUL04*	30SEP04	211	66,297.20											
1407-125	Fabricate VPI tanks & equipt/components	87*	01MAR04*	30JUN04	162	63,898.00											
1407-130	Misc tools & equipt	87*	01MAR04*	30JUN04	162	50,960.00											
1407-135	Fabricate Coil support structure (2)	87*	01MAR04*	30JUN04	162	40,388.00											
<b>Area Preparation</b>																	
1407-200	Decon TFTR test Cell Crane	20	26NOV03A	26NOV03A		18,432.00											
1407-202	Setup facility stations	55*	16APR04*	02JUL04	160	116,647.20											
1407-204	Build cleanrooms (2) locations	96	16FEB04*	29JUN04	163	108,650.00											
1407-204.2	Build cleanroom (1 add'l) **2nd line**	65*	30JUN04	30SEP04	211	54,325.00											
<b>Job: 1409 - Mod. Coil Test Stand-GETTELFINGER</b>																	
<b>Test Stand</b>																	
1409-000	FY04 Oct-Mar	66*	20OCT03A	31MAR04A		215,830.82											
1409-026	Install Electrical	94*	01JAN04A	31MAR04A		0.00											
1409-030	Generate I2T Reqmnts	16	23FEB04A	15MAR04A		0.00											
1409-036	Define N2 Election Scheme	2	23FEB04A	24FEB04A		0.00											
1409-038	Plan/Procure N2 Ejection Scheme	14	25FEB04A	15MAR04A		0.00											
1409-029	Oversight/Supervision	86*	01APR04	02AUG04	122	35,016.70											
1409-025	Complete Design **ECP-6**\$ incr*	22*	01APR04*	30APR04	151	26,931.20											
1409-032	Design I2T Protection **ECP-6**\$ incr*	22*	01APR04*	30APR04	154	6,028.00											
1409-034	Fabricate I2T Cards **ECP-6**\$ incr*	15	03MAY04*	21MAY04	154	15,795.00											
1409-040	Install N2 Ejection Scheme **ECP-6**\$ incr*	14	27MAY04*	16JUN04	137	12,740.00											
1409-027	Cryo Line Installation	10	13MAY04*	26MAY04	151	28,053.00											

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04												FY05												FY06												FY07												FY08												FY09											
1409-110	ES&H Peer Review	1	05APR04*	05APR04	188	0.00																																																																								
1409-100	Design Controls Modifications **ECP-6*new scope*	20	08APR04*	05MAY04	153	46,696.80													Gettelfinger=60; Marsala=180; Gemhardt=92																																																											
1409-120	Install Control Modifications **ECP-6*new scope*	13	06MAY04	24MAY04	153	12,288.00													em//tb=160																																																											
1409-125	Controls Peer Review **ECP-6*new scope*	1	12MAY04*	12MAY04	160	0.00																																																																								
1409-044	Final Design & Oper Preparedness Rvw **ECP-6*new*	1	24MAY04*	24MAY04	153	0.00																																																																								
1409-028	System Testing **ECP-6**\$ incr*	10	17JUN04	30JUN04	137	17,912.00													gettelfinger=80; em//tb=65																																																											
1409-046	Facility (simply cooled) Available**ECP-6**\$ inc	0		30JUN04	137	0.00																																																																								
1409-140	Design Closed Loop LN2 System **ECP-6*new scope*	27	07APR04*	13MAY04	122	0.00																																																																								
1409-130	Cryostat (specimen shroud) dsn **ECP-6*new scope	10	30APR04	13MAY04	122	6,460.00													Gettelfinger =40																																																											
1409-145	Peer rvw closed loop LN2 syst **ECP-6*new scope	1	14MAY04	14MAY04	122	0.00																																																																								
1409-150	Proc Mat's/pump f/closed LN2 **ECP-6*new scope	47	17MAY04	22JUL04	122	19,110.00													41=\$15																																																											
1409-155	Fab/Instl Closed Loop LN2 sys **ECP-6*new scope	15	01JUL04	22JUL04	122	12,636.00													delaney=120																																																											
1409-135	Cryostat (specimen shroud) Fabr**ECP-6*new scope	15	01JUL04	22JUL04	122	21,956.00													41=\$10k; em//tb=120																																																											
1409-160	Test Closed Loop Cooling**ECP-6*new scope	7	23JUL04	02AUG04	122	3,072.00													Herskowitz=40																																																											
1409-165	Closed Loop Facility Available**ECP-6*new scope	0		02AUG04	122	0.00																																																																								

**15 - Structures**

**151 - Coil Support Structure**

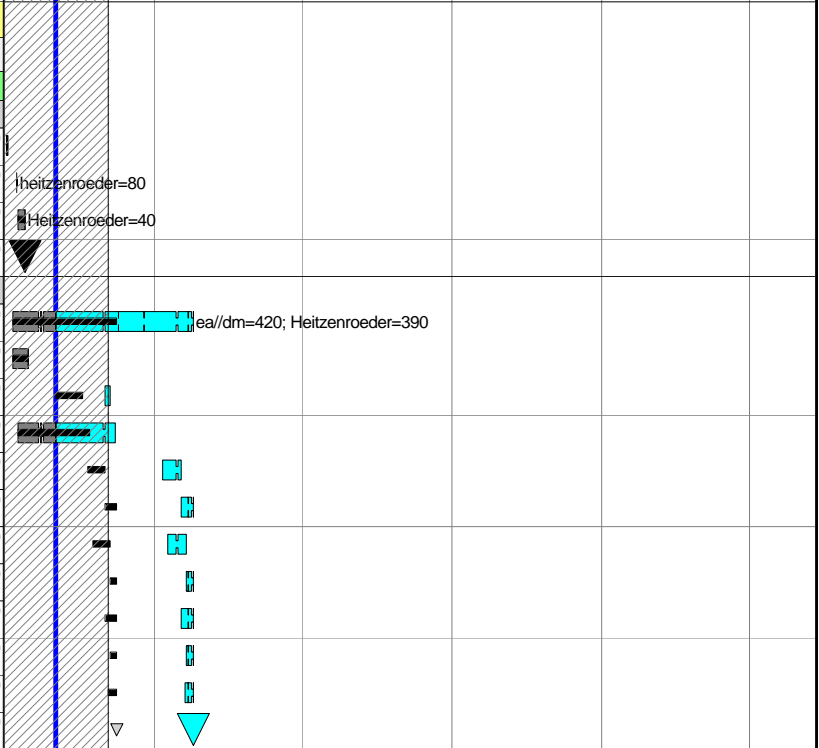
**Job: 1501 - Structures Design- Heitzenroeder**

**PDR/PBR Task List**

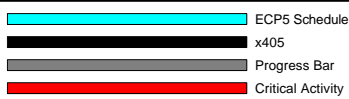
Activity ID	Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost
1501-105	Project PDR	1	07OCT03A	07OCT03A		0.00
1501-109	Prepare FY 04 WP/WAF	20	31OCT03A	31OCT03A		12,856.00
1501-113	Prepare PBR documentation	10	04NOV03A	18NOV03A		6,428.00
1501-117	Performance baseline review	0		18NOV03A		0.00

**Reqmnts, Configuration, Interfaces and PDR**

Activity ID	Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost
1501-121	Rqmnts, Config, Interfaces, PDR (summary task)	307*	21OCT03A	05JAN05	122	0.00
1501-125	Update drawings & models based on vendor recomb	30	21OCT03A	26NOV03A		28,765.30
1501-129	Develop a SRD design to spec	10	03JUN04*	16JUN04	251	6,267.30
1501-133	Prepare a "scope sheet" which defines all interf	166*	03NOV03A	25JUN04	254	6,267.30
1501-137	Prepare assembly & interface drawings for ICDs	30	22OCT04	06DEC04	122	29,570.80
1501-141	Finalize and approve all ICDs	20	07DEC04	05JAN05	122	6,442.80
1501-145	Prepare assembly drawings for structure / coils	30	05NOV04	20DEC04	122	29,570.80
1501-149	Update design basis document; address size and w	10	21DEC04	05JAN05	122	6,442.80
1501-157	Perform RAM & ES&H analyses document in design b	19	08DEC04	05JAN05	122	6,442.80
1501-161	Update cost and schedule	10	21DEC04	05JAN05	122	6,442.80
1501-162	PDR Preparation	15	14DEC04	05JAN05	122	6,442.80
1501-165	Perform Coil Support Structure PDR	0		05JAN05*	122	0.00



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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule													
							FY04	FY05	FY06	FY07	FY08	FY09								
<b>Preliminary Design Analyses</b>																				
1501-169	Design Analyses (summary task)	36*	11NOV04	05JAN05	122	0.00														
1501-173	Update ANSYS model of coils & structure	21	11NOV04	13DEC04	122	10,755.20														
1501-177	Perform structural stress analyses	21	11NOV04	13DEC04	122	10,755.20														
1501-181	Perform structural deflection analyses	21	11NOV04	13DEC04	122	10,755.20														
1501-185	Check EM loads for reference scenarios	21	06DEC04	05JAN05	122	10,755.20														
1501-189	Perform EM combined loads & fault conditions	21	06DEC04	05JAN05	122	11,085.60														
1501-221	Prepare Failure Modes Assessment (FMECA)	31	18NOV04	05JAN05	122	4,625.60														
<b>Structures Final Design</b>																				
1501-205	Structures FDR (summary task)	87*	06JAN05	06MAY05	122	0.00														
1501-197	Update analyses based on PDR recommendations	15	06JAN05	26JAN05	122	6,277.60														
1501-201	Independent check of EM/ ANSYS analyses	15	27JAN05	16FEB05	122	6,277.60														
1501-209	Prepare final drawings	30	06JAN05*	16FEB05	122	19,493.60														
1501-213	Check & promote models / drawings	15	17FEB05	09MAR05	122	12,885.60														
1501-217	Update build to spec / sow	14	10MAR05	29MAR05	122	6,277.60														
1501-225	Update design basis document	11	30MAR05	13APR05	122	6,277.60														
1501-229	Update cost & schedule estimates	18	13APR05	06MAY05	122	6,277.60														
1501-233	Prepare FDR documentation / presentations	18	13APR05	06MAY05	122	6,442.80														
1501-237	Prepare ECP for FDR	18	13APR05	06MAY05	122	6,442.80														
1501-241	FDR Coil Support Structure	0		06MAY05	122	0.00														
<b>Job: 1520-Structures Procure,Fab,Title III</b>																				
1501-245	Prep Spec,Solicit Bids, and Evaluate Bids	65	09MAY05	09AUG05	122	0.00														
162-036.9	Award Coil Support Assy	0		09AUG05*	117	0.00														
162-037	WBS 151Coil Support Assy Procurement [A1]	249	10AUG05	08AUG06	117	987,158.04														
162-031	Title III engr WBS 151	249	10AUG05	08AUG06	798	153,526.08														
153.037	WBS 153 Support Structure I&C Procurement/Fab	249	03OCT05*	29SEP06	232	8,464.20														
153.015	Title III design WBS 153 local&C	249*	03OCT05*	29SEP06	761	4,648.46														
<b>16 - Coil Services</b>																				
<b>161 - LN2 Distribution</b>																				
<b>161 - LN2 Distribution</b>																				
191-001	Title I design WBS 161 LN2 manifolds&piping	65	01DEC05*	09MAR06	127	49,812.41														
191-011	Title II design WBS 161 LN2 manifolds&piping	60	10MAR06	02JUN06	127	99,769.73														
191-031	Title III engr WBS 161	280	05JUN06*	17JUL07	564	14,468.81														
191-037	Procurement WBS 161	130	05JUN06*	07DEC06	127	69,999.49														

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04	FY05	FY06	FY07	FY08	FY09	
191-038	PDR#17	130	08DEC06*	18JUN07	584	59,974.72							
191-041	LN2 Manifolds & ppg Fab/assy WBS 161	65	08DEC06*	16MAR07	127	32,986.60				41=44.36\$k ;			
191-042	PDR #17,25,3	65	08DEC06*	16MAR07	649	10,512.80				EM//SM =71hr ; EM//TB =284hr ;			
<b>162 - Electrical Leads</b>													
<b>162 - Electrical Leads</b>													
132-000	PDR #17 & 25	325	30NOV05*	22MAR07	645	40,162.88				Williamson =20; omIrm=200			
132-001	Title I design WBS 162 Coil leads	130	01DEC05*	09JUN06	127	129,613.39				Williamson =869; omIrm=20			
132-011	Title II design WBS 162 Coil leads	130	12JUN06	14DEC06	127	133,039.37				Williamson=868; omIrm=20			
132-015	Title III design WBS 162 Coil leads	60	15DEC06*	16MAR07	649	16,105.48				ORNLEM =98; em//sm=8			
132-037	Coil Leads Procurement WBS 162	60	15DEC06*	16MAR07	127	302,334.24				41=223.6 k			
<b>163 - Coil Protection System</b>													
<b>163 - Coil Protection System</b>													
163.001	Title I design WBS 163 Coil protection	65	03OCT05*	11JAN06	905	39,029.02				Williamson =82;omIrm=80;r///m2=80			
163.011	Title II design WBS 163 Coil protection	40	12JAN06	08MAR06	905	39,029.02				Williamson=82;omIrm=80;r///m2=80			
<b>17 - Cryostat and Base Support Structure</b>													
<b>171 -Cryostat</b>													
<b>Job:1701-Cryost&amp;Base Sprt Strct Dsn-GETTLFINGER</b>													
<b>FY03 Actual Cost</b>													
1701-001	Apr-Sept MIE Costs PPPL	54	01APR03A	30SEP03A		12,180.00							
151-001	Title I design WBS 171 cryostat shell & struct	100	03MAY04*	22SEP04	171	110,056.40				gettlfinger =488hr ; ea//dm =297hr ;			
151-002	Cryostat & Base Support Struct PDR	0		22SEP04	171	0.00							
<b>171 - Cryostat</b>													
151-011	Title II design WBS 171 cryostat shell & struct	243*	01OCT04*	22SEP05	171	226,216.90				Gettlfinger =976hr ; ea//dm =593hr ;			
151-012	WBS 17 FDR	0		22SEP05	171	0.00							
151-031	Title III engr	318	15DEC05	28MAR07	641	30,815.05				Gettlfinger =34hr ; ea//dm=220			
151-036.8	Prep Spec, Solicit bids, and Select Vendor	65	15DEC05*	23MAR06	124	0.00							
151-036.9	Award Cryostat Procurement	0		23MAR06	124	0.00							
151-037	Cryostat Procurement [A/1]	249	24MAR06	22MAR07	124	479,215.43				41=358.47\$k ; 35=02\$k ;			
<b>172 - Base Support Structure</b>													
<b>Job:1701-Cryost&amp;Base Sprt Strct Dsn-GETTLFINGER</b>													
161-001	Title I design WBS 172 base support struct	100	03MAY04*	22SEP04	171	50,507.00				EA//DM =170hr ; gettlfinger =202hr			

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule											
							FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
<b>172 - Base Support Structure</b>																		
161-011	Title II design WBS 172 base support struct	249	23SEP04	22SEP05	171	54,706.46	EA/DM =170hr ; EA/EM =202hr ; omlem=20											
161-031	Title III engr WBS 172	150	01DEC05	10JUL06	819	46,651.32	Gettelfinger =60hr ; ORNLEM =252hr ;											
161-036.8	Prep Spec, Solicit bids, and Select Vendor	65	01DEC05*	09MAR06	124	0.00	41=238\$k ; 35=02\$k ;											
161-036.9	Award Machine Base&supports Procurement	0		09MAR06	124	0.00												
161-037	Machine Base&supports Procurement [A/1]	90	10MAR06	17JUL06	124	286,302.65												
<b>18 - Field Period Assembly</b>																		
<b>181 - Field Period Assembly Planning/Oversight</b>																		
<b>Job: 1801-Field Period Assly -CHRZANOWSKI (ORNL)</b>																		
<b>FY03 Actual Cost</b>																		
1801-001	Apr-Sept MIE Costs PPPL	42	01APR03A	30SEP03A		7,750.00												
1801-002	Apr-Sept MIE Costs ORNL	42	01APR03A	30SEP03A		53,050.00												
<b>Job: 1802 - FP Assy Oversight&amp;Support-VIOLA</b>																		
<b>Oversight and Supervision</b>																		
181.100	PPPL EM LOE FY04	242*	13OCT03A	30SEP04	1,259	77,947.50	Viola =397; Travel=\$8k											
181.200	HP Coverage in the TFTR TC LOE FY04	171*	02FEB04*	30SEP04	1,259	115,320.00	Health Physics Techs=1200											
181.201	D-Site Shift Supervisor LOE FY04	171*	02FEB04*	30SEP04	1,259	25,920.40	ee//em (shift supervisor)=172											
181.110	PPPL EM LOE FY05	249*	01OCT04*	30SEP05	1,010	146,784.00	Viola=800; travel=\$8k											
181.210	HP Coverage in the TFTR TC LOE FY05	249*	01OCT04*	30SEP05	1,010	128,440.00	sh/tb=1300											
181.310	ORNL EM LOE FY05	249*	01OCT04*	30SEP05	1,010	119,316.89	COLE=847											
181.120	PPPL EM LOE FY06	250*	03OCT05*	02OCT06	760	451,299.93	Viola=2589 travel=\$8k											
181.220	HP Coverage in the TFTR TC LOE FY06	250*	03OCT05*	02OCT06	760	130,690.04	sh/tb=1300											
181.320	ORNL EM LOE FY06	250*	03OCT05*	02OCT06	760	122,771.80	COLE=847											
<b>182 - TFTR Test Cell Area preparations</b>																		
<b>Job:1810 - Field Period Assembly</b>																		
<b>Period 1</b>																		
721.010	Area preparations	90	03OCT05*	15FEB06	124	92,942.40	em/sm=144; em/tb=960											
<b>183 - Receive,Inspect, and Test Coils</b>																		
<b>1808 - TF/Mod Coil Sub-Assembly</b>																		
<b>TF Coil Sub-assembly</b>																		
722.010	Receive/Inspect TF & PF Coils	249*	03OCT05*	29SEP06	761	77,365.60	em/sm=268; em/tb=596											
<b>184 - Receive, Inspect, and Test VV</b>																		
<b>Job:1810 - Field Period Assembly</b>																		
<b>Period 1</b>																		
P1-180	Rec'v VV,Attach cng tubes &Insul to 1st Period	39	06MAR06	27APR06	112	95,908.80	em/sm=416; em/tb=624											
<b>Period 2</b>																		
P2-180	Rec'v VV,Attach cng tubes &Insul to 2nd Period	39	28APR06	22JUN06	112	95,908.80	em/sm=416; em/tb=624											

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04									FY05									FY06									FY07									FY08									FY09								
<b>Period 3</b>																																																												
P3-180	Rec'v VV,Attach clng tubes &Insul to 3rd Period	39	23JUN06*	17AUG06	112	95,908.80																			em//sm=416; em//tb=624																																			
P1-180A	cd-4 350c increment	109	06MAR06	07AUG06	799	38,544.00																			em//sm=416; em//tb=624																																			
<b>185 - Assemble Field Periods</b>																																																												
<b>1808 - TF/Mod Coil Sub-Assembly</b>																																																												
<b>Modular Coil Sub-assembly</b>																																																												
184-200	Mount/align right mod coil in fixture-Period #1	15	31MAR06	20APR06	121	47,404.80																			em//sm=120;em//sm machinist=48;em//tb=360																																			
184-205	Mount/align left mod coil in fixture-Period #1	12	25APR06	10MAY06	117	38,980.80																			em//sm=96;em//sm machinist=48;em//tb=288																																			
184-210	Mount/align right mod coil in fixture-Period #2	12	22MAY06	07JUN06	125	38,980.80																			em//sm=96;em//sm machinist=48;em//tb=288																																			
184-215	Mount/align left mod coil in fixture-Period #2	12	16JUN06	03JUL06	117	38,980.80																			em//sm=96;em//sm machinist=48;em//tb=288																																			
184-220	Mount/align right mod coil in fixture-Period #3	12	14JUL06	31JUL06	125	38,980.80																			em//sm=96;em//sm machinist=48;em//tb=288																																			
184-225	Mount/align left mod coil in fixture-Period #3	12	09AUG06	24AUG06	117	38,980.80																			em//sm=96;em//sm machinist=48;em//tb=288																																			
P1-000	PDR # 19 MCWF fitup	94	21APR06	01SEP06	780	16,428.30																			em//sm=42, em//tb=147																																			
<b>TF Coil Sub-assembly</b>																																																												
184-100	Assemble 3 TF coils&structure -Right -Period #1	10	21FEB06	06MAR06	174	34,504.00																			em//sm=80; em//tb=320																																			
184-105	Assemble 3 TF coils&structure -Left -Period #1	10	07MAR06	20MAR06	174	34,504.00																			em//sm=80; em//tb=320																																			
184-110	Assemble 3 TF coils&structure -Right -Period #2	10	21MAR06	03APR06	191	34,504.00																			em//sm=80; em//tb=320																																			
184-115	Assemble 3 TF coils&structure -Left -Period #2	10	26APR06	09MAY06	175	34,504.00																			em//sm=80; em//tb=320																																			
184-120	Assemble 3 TF coils&structure -Right -Period #3	10	21JUL06	03AUG06	142	34,504.00																			em//sm=80; em//tb=320																																			
184-125	Assemble 3 TF coils&structure -Left -Period #3	10	18SEP06	29SEP06	112	34,504.00																			em//sm=80; em//tb=320																																			
<b>Job:1810 - Field Period Assembly</b>																																																												
<b>Period 1</b>																																																												
725.001	Assemble Field Period #1 (summary task)	92*	28APR06	07SEP06	147	290,396.00																			em//sm=928; em//tb=2344																																			
P1-180.9	Begin Assembly of First Field Period	0	28APR06		116	0.00																			em//sm=928; em//tb=2344																																			
P1-181	Assemble 1st. Field Period - coils/VV	37	28APR06	20JUN06	116	0.00																			em//sm=928; em//tb=2344																																			
P1-191	Position and weld port assemblies (Add'l ECP 8)	15	21JUN06	12JUL06	147	24,868.00																			em//sm=80; em//tb=200																																			
P1-201	Bakeout vessel segment to 150 degrees C	6	13JUL06	20JUL06	147	0.00																			em//sm=80; em//tb=200																																			
P1-211	vacuum leak check &Ext Trim coil instl	25	21JUL06	24AUG06	147	0.00																			em//sm=80; em//tb=200																																			
P1-221	Prepare field period for shipment	5	25AUG06	31AUG06	147	0.00																			em//sm=80; em//tb=200																																			
P1-231	Ship 1st. Field period	3	01SEP06	06SEP06	147	0.00																			em//sm=80; em//tb=200																																			
P1-241	Field period 1 ready for installation	1	07SEP06	07SEP06	147	0.00																			em//sm=80; em//tb=200																																			
<b>Period 2</b>																																																												
725.101	Assemble Field Period #2 (summary task)	91*	23JUN06	31OCT06	129	295,816.41																			em//sm=928; em//tb=2344																																			
P2-181	Assemble 2nd. Field Period- coils/ VV	37	23JUN06	15AUG06	114	0.00																			em//sm=928; em//tb=2344																																			
P2-191	Position and weld port assemblies (Add'l ECP 8)	15	16AUG06	06SEP06	129	24,868.00																			em//sm=80; em//tb=200																																			
P2-201	Bakeout vessel segment to 150 degrees C	6	07SEP06	14SEP06	129	0.00																			em//sm=80; em//tb=200																																			

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)										
							FY04	FY05	FY06	FY07	FY08	FY09				
P2-211	vacuum leak check &Ext Trim coil instl	25	15SEP06	19OCT06	129	0.00										
P2-221	Prepare field period for shipment	5	20OCT06	26OCT06	129	0.00										
P2-231	Ship 2nd. Field period	3	27OCT06	31OCT06	129	0.00										
P2-241	Field Period 2 ready for installation	1	01NOV06	01NOV06	129	0.00										
<b>Period 3</b>																
725.201	Assemble Field Period #3 (summary task)	90*	18AUG06	03JAN07	112	305,343.20										
P3-181	Assemble 3rd. Field Period - coils/ VV	37	18AUG06	10OCT06	112	0.00										
P3-191	Position and weld port assemblies (Add'l ECP 8)	15	11OCT06	31OCT06	112	26,788.00										
P3-201	Bakeout vessel segment to 150 degrees C	5	01NOV06	07NOV06	112	0.00										
P3-211	vacuum leak check &Ext Trim coil instl	25	08NOV06	14DEC06	112	0.00										
P3-221	Prepare field period for shipment	5	15DEC06	21DEC06	112	0.00										
P3-231	Ship 3rd. Field Period	3	22DEC06	03JAN07	112	0.00										
P3-241	3rd. Period ready for installation	1	04JAN07	04JAN07	112	0.00										
P3-241.1	Last Field Period Assembled	0		04JAN07	700	0.00										

**186 - Tooling Design and Fabrication**

**Job: 1803- FP Assy Tooling/Constructability-COLE**




Tooling Design & Fabrication																
713A.010	Design Tooling	171*	02FEB04	30SEP04	268	324,951.05										
713A.010A	FP Assy Tooling Reqmts&Constructability Peer Rvw	0		30MAR04*	1,388	0.00										
713.010B	Tooling & Constructability FDR	0		30SEP04	268	0.00										
713A.032	Fabricate-TF Coil sub-assy frame/manipulator	195	18MAR05*	22DEC05	210	10,366.40										
713A.030	Fabricate-VV supporting fixture (3)	195	20APR05*	01FEB06	134	97,300.00										
713A.031	Fabricate-Modular Coil sub-assy frame/manip/fixt	195	17JUN05*	30MAR06	121	209,310.73										
713A.033	Fabricate-Full FP support fixture (3)	195	07JUL05*	18APR06	123	9,757.00										
713A.034	Fabricate-VV port welding fixtures	195	29JUL05*	10MAY06	175	13,020.00										
713A.040	General procurements	498*	01OCT04*	29SEP06	761	25,970.00										
713A.050	Welding tools, materials & equipt	498*	01OCT04*	29SEP06	761	58,432.50										
713A.020	Lab Fab/Assy/Installation	403*	25FEB05*	02OCT06	760	349,167.95										
713A.060	Instl He gas piping from NSTX to D-site tc	85	03OCT05*	08FEB06	925	0.00										
<b>Tooling R&amp;D</b>																
713A.011	Tooling R&D-Design VV/MCWF Mockups inc pdr#20	84*	01DEC03A	05APR04	1,229	38,735.69										
713A.012	Tooling R&D-Procure VV & MCWF Mockups [A/9]	105	06APR04	01SEP04	1,229	157,976.00										
713A.013	Tooling R&D-Inspection & assy trails	50	15NOV04	03FEB05	1,178	47,501.60										

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ECP5 Schedule  
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 Progress Bar  
 Critical Activity

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule								
							FY04	FY05	FY06	FY07	FY08	FY09			
<b>187 - Measurement Systems</b>															
<b>Job: 1804-FP Assy Measurement Sys-RAFTOPOULOS</b>															
<b>Metrology</b>															
740.010	Final Design Measurement systems	181*	19JAN04A	30SEP04	1,259	69,422.40	Raftopoulos= 432								
740.011	3-D Scanner/Faro Arm FDR	0		30JAN04A		0.00									
740.015	Prepare Requisition 3-D scanner & Romer Arm	10	30JAN04A	30JAN04A		0.00									
740.030	Deliver 3-D Scanner & Romer Arm	1	30MAR04*	30MAR04	227	171,990.00	41=\$ 135 k								
740.031	Metrology Software Review	0		30JAN04A		0.00									
740.032	Prepare Met Software Requisition	10	30JAN04A	30JAN04A		0.00									
740.035	Deliver Metrology Software	53	31MAR04*	14JUN04	1,335	57,266.30	41=\$ 44.95 k R400938								
740.041	FP Assy Laser based GPS Sys Review	0		02AUG04*	1,178	0.00									
740.042	Prepare GPS Sys Requisition	10	03AUG04	16AUG04	1,178	0.00									
740.043	Bid,Evaluate & Award GPS sys	33	17AUG04	01OCT04	1,178	0.00									
740.044	Deliver GPS sys	30	04OCT04	12NOV04	1,178	129,200.00	\$100k laser based gps sys								
740.020	Faculty Prep	95	03OCT05*	22FEB06	162	60,384.40	em/sm=168;em/tb=392 travel=\$ 6 k								
740.045	Purchase- second Faro Arm (was under WBS 14)	102	01OCT04*	04MAR05	1,157	71,060.00	41=\$ 55 k								
740.050	Purchase- targets [A9]	130	01JUL05*	12JAN06	944	32,300.00	41=\$ 25 k								
<b>19 - Stellarator Core Management and Integration</b>															
<b>191 - Stellarator Core Management &amp; Oversight</b>															
<b>Job: 1901 - Stellarator Core Mngtt&amp;Integr-NELSON</b>															
<b>FY03 Actual Cost</b>															
1901-002	Apr-Sept MIE Costs ORNL	248	01APR03A	30SEP03A		187,090.00									
<b>191 - Stellarator Core Management &amp; Oversight</b>															
191-4	LOE-FY04 WBS 191-4 Management Activities	250*	01OCT03A	30SEP04	1,259	145,699.85	NELSON 395+670=1065 ;35= 5 k								
0191-5	LOE-FY05 WBS 191	249*	01OCT04*	30SEP05	1,010	197,596.67	NELSON 1480-139=1341 ;35=5 k								
0191-6	LOE-FY06 WBS 191	250*	03OCT05*	02OCT06	526	190,877.89	NELSON 1480-223=1257 ;35=5 k								
0191-6X	LOE-FY07 WBS 191	234	03OCT06*	10SEP07	526	199,716.12	NELSON 1091+364-223=1232 35=5 k								
0191-91	LOE-FY06 WBS 191 1 mo SO	22	01OCT07*	30OCT07	346	20,250.00	NELSON=125 ;35=.5 k								
0191-92	LOE-FY06 WBS 191 1 mo SO	21	31OCT07*	28NOV07	346	20,250.00	NELSON=125 ;35=.5 k								
0191-93	LOE-FY06 WBS 191 1 mo SO	15	03DEC07*	21DEC07	346	20,250.00	NELSON=125 ;35=.5 k								
0191-94	LOE-FY06 WBS 191 1 mo SO	22	01JAN08*	30JAN08	346	20,250.00	NELSON=125 ;35=.5 k								
0191-95	LOE-FY06 WBS 191 1 mo SO	22	31JAN08*	29FEB08	346	20,250.00	NELSON=125 ;35=.5 k								
0191-96	LOE-FY06 WBS 191 1 mo SO	22	03MAR08*	01APR08	346	20,250.00	NELSON=125 ;35=.5 k								
0191-97	LOE-FY06 WBS 191 1 mo SO	21	02APR08*	30APR08	346	20,250.00	NELSON=125 ;35=.5 k								
0191-98	LOE-FY06 WBS 191 1 mo SO	21	01MAY08*	30MAY08	346	20,250.00	NELSON=125 ;35=.5 k								

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 ECP5 Schedule x405  
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NCSX Baseline  
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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year									
							FY04	FY05	FY06	FY07	FY08	FY09				
<b>192 - Stellarator Core Integration &amp; Analysis</b>																
<b>Job: 1901 - Stellarator Core Mngt&amp;Integr-NELSON</b>																
<b>FY03 Actual Cost</b>																
1901-003	Apr-Sept MIE Costs PPPL	248	01APR03A	30SEP03A		67,070.00										
<b>192 - Stellarator Core Integration &amp; Analysis</b>																
192-4	LOE-FY05 WBS 192-4 Design Integration Activities	250*	01OCT03A	30SEP04	1,259	237,358.09	Brown=240; Cole=1184; Travel=\$ 2.5 k Jones (ornl)=85; ORNL software=\$29.95 k									
192-4.1	Self consistent models/dwgs f/ Mod Coil & VV FDR	0		14APR04*	1,377	0.00										
192-4.2	Self consistent models/dwgs Conv Coils&sprt strc	0		01JUN04*	1,344	0.00										
192-4.4	Stellarator Core Assy dwgs & assy sequence	0		30SEP04*	1,259	0.00										
192-5	LOE-FY05 WBS 192-5 VV & Coil Services Integr	186*	01OCT03A	30JUN04	1,323	36,676.65	Cole=200 Jones (ornl)=85;									
192-5.1	VV Helium Line Models	0		01APR04*	1,386	0.00										
192-5.2	Mod Coil LN2 Lines Layouts	0		01APR04*	1,386	0.00										
192-5.3	Mod Coil Leads Layouts	0		01APR04*	1,386	0.00										
192-5.4	PF Coil Leads & Services Layouts	0		15JUN04*	1,334	0.00										
192-5.5	TF Coil leads & Services Layouts	0		15JUN04*	1,334	0.00										
192-5.6	External Trim Coil Leads /services Layouts	0		15JUN04*	1,334	0.00										
192-6	LOE-FY05 WBS 192-6 Integrated Analysis	250*	01OCT03A	30SEP04	1,259	44,031.80	Zatz=0; Brooks=274									
192-6.01	Document coil tolerance and trim coil requiremen	31	08MAR04*	19APR04	119	19,284.00	brooks=120									
192-6.011	Coil winding center determination Increase	31	08MAR04*	19APR04	1,398	0.00										
192-6.02	Check critical coil tolerance calculations.	20	20APR04	17MAY04	119	10,295.20	Strickler=80									
192-6.03	Invest FARO arm to deter mag field distrib from	26	02FEB04*	08MAR04	237	25,738.00	Hirshman=100, Strickler=100									
192-6.04	Calc impact omisalignments on mutual inductances	30	09MAR04	19APR04	1,277	25,738.00	Hirshman=80, Strickler=120									
192-6.05	Determine reqd process for assly tolerances	58	20APR04	12JUL04	1,277	30,885.60	ORNL engr=240									
192-6.06	Coil positions to minimize islands.	63	13JUL04	08OCT04	1,277	62,328.00	Hirshman=180, Strickler=300									
192-6.07	Time constant calcs using SPARK	11	19APR04*	03MAY04	129	6,428.00	Brooks=40									
192-6.08	Indep check time constant calcs using EDDYCUFF	20	17MAY04*	14JUN04	1,359	10,295.20	Strickler=80									
192-6.09	Revised VV geometry	6	02FEB04*	09FEB04	1,448	3,214.00	Brooks=20									
192-6.10	MC interf during assly, geometry, assly trajecto	31	02FEB04*	15MAR04	1,423	34,073.60	Brooks=120, Brown=60, ORNL engr=40									
192-6.11	Range of motion reqts for Assly MC fixture.	20	03MAY04*	28MAY04	1,369	18,003.60	Brooks=80, Cole=40									
192-6.12	Final check and verification	6	31MAR04*	07APR04	1,406	3,856.80	brooks=24									
192-6.1	Final Analysis coil geometry to field error	0		02FEB04*	1,429	0.00										
192-6.5	Stellarator Core Assy Design criteria	0		02FEB04*	1,429	0.00										
192-6.2	Final Mod Coil Trajectories	0		01MAR04*	1,409	0.00										
192-6.6	Stellarator Core Materials Database	0		01MAR04*	1,409	0.00										
192-6.3	Best fit for mod coil assy on winding measuremen	0		30SEP04*	1,259	0.00										

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04												FY05												FY06												FY07												FY08												FY09											
0192-5	LOE-FY05 WBS 192	249*	01OCT04*	30SEP05	1,010	514,578.55																																																																								
0192-6	LOE-FY06 WBS 192	250	03OCT05*	02OCT06	518	165,946.13																																																																								
0192-6X	LOE-FY06 WBS 192	242	03OCT06*	20SEP07	518	135,038.20																																																																								
0192-91	LOE-F1 mo SO	22	01OCT07*	30OCT07	338	16,018.04																																																																								
0192-92	LOE-F1 mo SO	22	31OCT07*	03DEC07	338	16,018.04																																																																								
0192-93	LOE-F1 mo SO	22	04DEC07*	10JAN08	338	16,018.04																																																																								
0192-94	LOE-F1 mo SO	22	11JAN08*	11FEB08	338	16,018.04																																																																								
0192-95	LOE-F1 mo SO	22	12FEB08*	12MAR08	338	16,018.04																																																																								
0192-96	LOE-F1 mo SO	22	13MAR08*	11APR08	338	16,018.04																																																																								
0192-97	LOE-F1 mo SO	21	14APR08*	12MAY08	338	16,018.04																																																																								
0192-98	LOE-F1 mo SO	21	13MAY08*	11JUN08	338	16,018.04																																																																								

**21 - Fueling Systems**

21-10	Eng. Work Planning and Design	65	03OCT05*	05JAN06	238	13,512.00
21-15	Design Gas Handling Hardware	65	06JAN06	06APR06	238	6,606.00
21-20	Design PLC Controls	65	06JAN06*	06APR06	238	17,968.00
21-25	Electrical Drafting for pumping system	65	06JAN06*	06APR06	238	13,200.00
21-30	Drafting	65	06JAN06*	06APR06	238	8,800.00
21-35	Eng. Work Planning and Design during fab	65	02OCT06*	04JAN07	114	3,638.00
21-40	Fabrication/Install Hardware	65	02OCT06*	04JAN07	114	7,116.00
21-45	Fabrication/installation	65	02OCT06*	04JAN07	114	53,477.20
21-55	Install PLC Controls	65	02OCT06*	04JAN07	114	9,672.00
21-60	Integrated Systems Testing/Eng	65	02OCT06*	04JAN07	114	3,638.00
21-65	Integrated Systems Testing/Tech Support	45	05JAN07*	08MAR07	114	2,418.00

Blanchard =80hr ;  
 EM//SM =60hr ;  
 EE//SM =160hr ;  
 EA/DM =120hr ;  
 EA/DM =80hr ;  
 Blanchard =20hr ;  
 EM//SM =60hr ;  
 EM//SM =150hr ; EM/TB =200hr ;  
 41=14\$ ;  
 EE//SM =80hr ;  
 Blanchard =20hr ;  
 EE//SM =20hr ;

**22 - Torus Vacuum Pumping Systems**

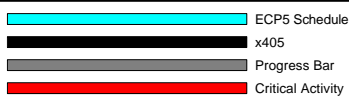
Job: 2001-VPS, Gas & Cond Sys Oversight-BLANCHARD						
FY03 Actual Cost						
2001-001	Apr-May MIE Cost	43*	01APR03A	30MAY03A		35,300.00
2001-100	PDR Support	164*	01JUN03A	30SEP03A		24,896.00
blanchard/provost fy03						
22-25	Eng. Work Planning and Design	65	03OCT05*	05JAN06	138	25,698.00
22-30	Design PLC based control system	65	06JAN06*	06APR06	203	35,936.00

Blanchard =100hr ; EM//SM =80hr ;  
 EE//SM =320hr ;



Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule														
							FY04	FY05	FY06	FY07	FY08	FY09									
22-35	Electrical Drafting for pumping system	65	06JAN06*	06APR06	203	23,100.00															
22-40	Drafting	65	06JAN06*	06APR06	138	17,600.00															
22-45	Eng. Work Planning and Design during fab	65	07APR06*	10JUL06	138	15,201.00															
22-50	Perform maint. & repair of pmpg sys	65	07APR06*	10JUL06	138	8,808.00															
22-55	Repair and Calibration of vac instrumentation	100	11AUG06*	03JAN07	115	9,243.20															
22-60	Fabrication/installation	100	11AUG06*	03JAN07	115	114,721.68															
22-65	Fab PLC conrols	100	11AUG06*	03JAN07	115	61,571.20															
22-70	Integrated Systems Testing/Eng	45	04JAN07*	07MAR07	115	7,276.00															
22-75	Integrated Systems Testing/Tech Support	45	04JAN07*	07MAR07	115	4,836.00															
<b>25 - Neutral Beam Injection System</b>																					
<b>250 - Neutral Beam Injection System</b>																					
<b>Job: 2501 - Neutral Beam Refurbishment-STEVENSON</b>																					
<b>FY03 Actual Cost</b>																					
2501-001	Apr-Sept MIE Cost	43*	01APR03A	30SEP03A		146,310.00															
<b>FY04 Work Plan</b>																					
2501-015	Design & Work Planning	227*	03NOV03A	30SEP04	1,259	5,425.20															
2501-020	Layout & Routing	192*	02JAN04A	30SEP04	1,259	7,732.80															
2501-025	Systems Interfaces	192*	02JAN04A	30SEP04	1,259	7,732.80															
2501-030	Power System Local testing	106*	01JAN04A	28MAY04	1,345	15,805.45															
2501-035	Controls Development	128*	02JAN04A	30JUN04	1,323	64,292.00															
<b>Refurbishment</b>																					
25-100	6) Drafting Support	695*	01OCT04*	25JUN07	588	108,007.21															
25-105	7) Refurbish sources	441	03OCT05*	26JUN07	587	3,977.51															
25-110	8) Fabricate and install new filaments	438	03OCT05*	21JUN07	590	6,625.84															
25-115	9) Refurbish calorimeters as needed	441	03OCT05*	26JUN07	587	18,559.92															
25-130	12) Dsn,Fan,Instil NBI vacuum system	438	13OCT05*	03JUL07	582	73,736.99															
25-145	15)Upgrade/Calibr of telemetry, ptical links etc	509*	01OCT04*	29SEP06	774	63,991.66															
25-155	17) Fab/Instl Front Box Nitrogen Cryopanel.	460	03OCT05*	23JUL07	568	97,269.14															
25-175	21) Sys Engr & Work Planning Procedures	699*	01OCT04*	29JUN07	584	70,981.24															
<b>Re-Install Beamline</b>																					
25-180	31)Work Planning Procedures	520	03JUN05*	18JUN07	593	64,528.62															
25-185	32) EAD analysis of platform support capability	104	02OCT06*	28FEB07	670	3,638.00															
25-190	33) Fabr BL alignment measur fixture,	104	02OCT06*	28FEB07	670	28,462.00															
25-195	34) Fabr new bellows/electrical break	104	02OCT06*	28FEB07	670	16,592.00															
25-200	35) Perform alignment measurements	104	02OCT06*	28FEB07	670	829.60															

Run Date 22JUN04 11:02






Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)												
							FY04	FY05	FY06	FY07	FY08	FY09						
25-205	36) Prepare platform for base plate	104	02OCT06*	28FEB07	670	1,659.20												EE//SM =08hr ; EM//TB =08hr ;
25-210	37) Relocate base plate to NCSX location	104	02OCT06*	28FEB07	670	6,636.80												EE//SM =32hr ; EM//TB =32hr ;
25-215	38) Lift NB from Refurb location to NCSX locatio	104	04OCT06*	02MAR07	668	25,717.60												EE//SM =124hr ; EM//TB =124hr ;
25-220	39) Enclose platform around base plate	190	29SEP06*	28JUN07	585	3,317.16			EE//SM =16hr ; EM//TB =16hr ;									
<b>Re-Install Cables</b>																		
25-225	Cabling-Design & WP Procedures	255	04SEP06*	31AUG07	539	28,940.86												EM//EM =160hr ;
25-230	Cabling-Fabr and Install new Junction Box	190	02OCT06*	29JUN07	584	16,592.00			EE//SM =80hr ; EM//TB =80hr ;									
25-235	Cabling-Hi-potting cable run and fixing problems	190	02OCT06*	29JUN07	584	8,296.00			EE//SM =40hr ; EM//TB =40hr ;									
25-240	Cabling-Install Cable Trays	190	02OCT06*	29JUN07	584	33,184.00			EE//SM =160hr ; EM//TB =160hr ;									
25-245	Cabling-Pull cables Arc Room to PVC Junction Box	190	02OCT06*	29JUN07	584	74,480.00												41=06\$ ; EE//SM =320hr ; EM//TB =320hr ;
25-250	Cabling- M&S f/ trays, fixtures, materials	190	02OCT06*	29JUN07	584	35,152.00												41=26\$ ;
<b>Beamline Connections</b>																		
25-255	Install weld cables Juncton Box to Ion Source.	170	02OCT06*	01JUN07	604	9,107.20												41=01\$ ; EE//SM =40hr ; EM//TB =40hr ;
25-260	Connect bBL to foreline and exhaust manifold.	170	02OCT06*	01JUN07	604	4,129.60												41=01\$ ; EE//SM =16hr ; EM//TB =16hr ;
25-265	New PLC. Test system after installation.	170	02OCT06*	01JUN07	604	3,318.40												EE//SM =16hr ; EM//TB =16hr ;
25-270	Connect BL to new manifold & test	170	02OCT06*	01JUN07	604	3,318.40												EE//SM =16hr ; EM//TB =16hr ;
25-275	Connect beamline to new manifold & test.	170	02OCT06*	01JUN07	604	3,318.40												EE//SM =16hr ; EM//TB =16hr ;
25-280	Connect beamline to new manifold and test	170	02OCT06*	01JUN07	604	1,659.20												EE//SM =08hr ; EM//TB =08hr ;
25-285	Install Water System	170	02OCT06*	01JUN07	604	27,727.20												41=02\$ ; EE//SM =120hr ; EM//TB =120hr ;
25-290	Fab & Install Water Cooled Aperture	170	02OCT06*	01JUN07	604	19,609.60												41=05\$ ; EE//SM =60hr ; EM//TB =60hr ;
25-295	New PLC for water sys & test	170	02OCT06*	01JUN07	604	1,659.20												EE//SM =08hr ; EM//TB =08hr ;
25-300	Diag Sys-Fab/install new cables	170	02OCT06*	01JUN07	604	1,659.20												EE//SM =08hr ; EM//TB =08hr ;
25-310	Drafting Labor Support	298	03APR06*	01JUN07	604	55,127.52												EA//DM =480hr ;
<b>31 - Magnetic Diagnostics</b>																		
310-010	Design Mag Diagnostics	94	03OCT05*	21FEB06	129	44,460.00												R//RM2 =108hr ; EE//EM =176hr ;
310-015	Fabricate & Install Magnetics on Vessel	108	17MAR06	17AUG06	112	140,205.50												EE//EM =215hr ; EE//SM =725hr ; 41=19\$ ;
310-020	Design other ex-vessel sensors	85	25JUL05*	21NOV05	116	154,537.34												R//RM2 =20hr ; EE//EM =580hr ; EA//DM =560hr ;
310-025	Fab & Install other ex-vessel sensors on coils	105	22NOV05	27APR06	116	78,406.05												EE//EM =72hr ; EM//SM =472hr ; 41=12\$ ;
310-030	Design & FabMagnetic integrators	94	22NOV05*	12APR06	127	36,491.65												41=11\$ ; EE//EM =40hr ; EE//SM =127hr ; EE//TB =24hr ;

Run Date 22JUN04 11:02

ECP5 Schedule  
x405  
Progress Bar  
Critical Activity

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule											
							FY04	FY05	FY06	FY07	FY08	FY09						
<b>36 - Edge and Divertor Diagnostics</b>																		
361-001	Design Visible Camera sys	130	03OCT05*	12APR06	208	11,096.00												
361-015	Fab/Assy/Installation Visible Camera	130	28AUG06*	08MAR07	113	88,191.41												
<b>38 - Electron Beam (EB) Mapping</b>																		
380-010	Design-Beam Probe,Fluor. Screen	88	03OCT05*	13FEB06	278	42,118.00												
380-015	Fab & Install Beam probe	102	06OCT06	08MAR07	113	249,952.00												
<b>39 - Diagnostics Integration</b>																		
<b>390 - Diagnostics Integration</b>																		
<b>Job: 3901 - Diagnostics sys Integration-JOHNSON</b>																		
390-100	Finalize VV ports (number,size,locations)	0		30JAN04*	1,430	0.00												
390-110	Resolve port interferences.Final port config	0		30JAN04*	1,430	0.00												
390-120	Update port map&revise diag port assignments	0		01MAR04*	1,409	0.00												
390-130	Rvw status of existing ICD's w/VV & Mod Coils	0		30JAN04*	1,430	0.00												
390-140	Write ICD's-Define external space for diagnostic	0		01MAR04*	1,409	0.00												
390-150	Write ICD's-Define space f/racks in cntrl rm	0		01MAR04*	1,409	0.00												
390-160	Start recruiting diag team at HTPD conference	0		30APR04*	1,365	0.00												
390-170	Develop space envelopes for SXR	0		30JAN04*	1,430	0.00												
390-180	Hold CDR's co-wound mag sensors&ext saddle loops	0		30SEP04*	1,259	0.00												
<b>Job: 3901 - Diagnostics sys Integration-JOHNSON</b>																		
<b>FY03 Actual Cost</b>																		
390-001	LOE Support FY03	151*	01APR03A	30SEP03A		155,450.00												
390-010	LOE Support FY04	250*	01OCT03A	30SEP04	1,259	78,023.50												
390-015	LOE Support FY05	249*	01OCT04*	30SEP05	1,010	183,996.90												
390-020	LOE Support FY06	249*	03OCT05*	29SEP06	761	187,148.40												
390-025	LOE Support FY07	122*	02OCT06*	30MAR07	469	99,039.11												
390-901	LOE Support FY07 1mo SO	22	02APR07	01MAY07	469	17,760.40												

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 ECP5 Schedule x405  
 Progress Bar  
 Critical Activity

ECP8

NCSX Baseline  
ECP 8

Sheet 32 of 49

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04										FY05										FY06										FY07										FY08										FY09									
390-902	LOE Support FY07 1mo SO	22	02MAY07	01JUN07	469	17,760.40																																																												
390-903	LOE Support FY07 1mo SO	21	04JUN07	02JUL07	469	17,760.40																																																												
390-904	LOE Support FY07 1mo SO	21	03JUL07	01AUG07	469	17,760.40																																																												
390-905	LOE Support FY07 1mo SO	21	02AUG07	30AUG07	469	17,760.40																																																												
390-906	LOE Support FY07 1mo SO	21	31AUG07	01OCT07	469	17,793.33																																																												
390-907	LOE Support FY07 1mo SO	21	02OCT07	30OCT07	469	18,451.90																																																												
390-908	LOE Support FY07 1mo SO	21	31OCT07	28NOV07	469	18,451.90																																																												

**41 - AC Power**

**411 - Auxliary AC Power Systems**

**Job: 4101 - AC Power-RAMAKRISHNAN**

**411 - Auxiliary AC Power Systems**

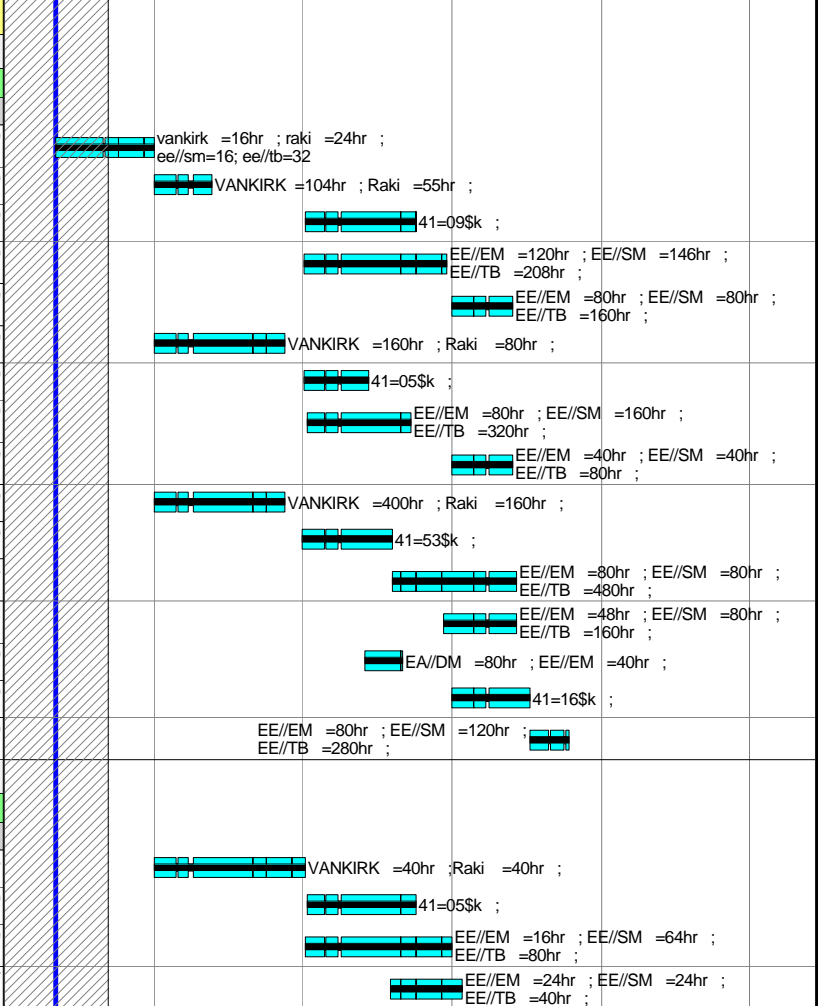
4101-100	Prepare Preliminary One line diagram	171*	02FEB04*	30SEP04	1,259	9,440.80
411-1-2	fEx-Test Cell AC Power Dist-Dsn	92*	01OCT04*	18FEB05	385	19,761.90
411-1-4	Ex-Test Cell AC Power Dist-Procure	185*	07OCT05*	06JUL06	279	11,745.00
411-1-6	Ex-Test Cell AC Power Dist-Install	240	03OCT05*	18SEP06	228	51,769.40
411-1-8	Ex-Test Cell AC Power Dist-Commission	100	02OCT06*	28FEB07	119	46,568.00
411-2-2	Grounding-Dsn	220*	01OCT04*	19AUG05	225	29,688.00
411-2-4	Grounding-Procure	107	03OCT05*	10MAR06	261	6,525.00
411-2-6	Grounding-Install	172	13OCT05*	22JUN06	188	55,912.00
411-2-8	Grounding-Commission	100	02OCT06*	28FEB07	119	18,448.00
411-3-2	Test Cell AC Power Distr-Dsn	220*	01OCT04*	19AUG05	140	68,024.00
411-3-4	Test Cell AC Power Distr-Procure	150	29SEP05*	08MAY06	113	69,612.50
411-3-6	Test Cell AC Power Distr-Install	207	09MAY06*	08MAR07	113	61,951.46
411-3-8	Test Cell AC Power Distr-Commission	121	11SEP06*	08MAR07	113	31,186.72
411-4-2	Standby Power for Cryo Sys -Dsn	65	01MAR06*	31MAY06	295	15,100.00
411-4-4	Standby Power for Cryo Sys -Procure	130	02OCT06*	11APR07	210	21,632.00
411-4-6	Standby Power for Cryo Sys -Install	65	12APR07	13JUL07	210	51,968.00

**412 - Experimental AC Power Systems**

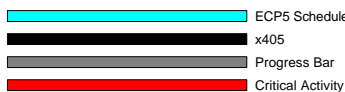
**Job: 4101 - AC Power-RAMAKRISHNAN**

**412 - Experimental AC Power Systems**

412-1-2	D-site Pulsed AC Power Distr-Dsn	253	01OCT04*	06OCT05	189	10,522.84
412-1-4	D-site Pulsed AC Power Distr-Procure	179	13OCT05*	03JUL06	251	6,525.00
412-1-6	D-site Pulsed AC Power Distr-Install	245	07OCT05	29SEP06	189	16,043.20
412-1-8	D-site Pulsed AC Power Distr-Commission	121	03MAY06*	23OCT06	173	9,741.47



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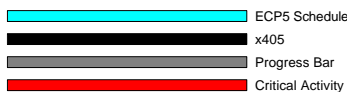
ECP8

NCSX Baseline  
ECP 8

Sheet 33 of 49

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule										
							FY04	FY05	FY06	FY07	FY08	FY09					
<b>42 - AC/DC Converters</b>																	
<b>422 - D-Site AC/DC Converters</b>																	
<b>422 - D-Site AC/DC Converters</b>																	
422-1-8	Transrex power supplies Reactivation	100	02OCT06*	28FEB07	119	23,534.00										EE//EM =40hr ; EE//SM =40hr ; EE//TB =100hr ; 41=\$2.5 k	
<b>43 - DC Systems</b>																	
<b>431 - C-Site DC Systems</b>																	
<b>Job: 4301 - DC Systems-RAMAKRISHNAN</b>																	
<b>431 - C-Site DC Systems</b>																	
4301-100	Prel Design link box & physical details,location	63	03MAY04*	30JUL04	1,302	75,124.40										vankirk=240; raki=160 ee//sm=96; ee//tb=120; 41=\$5	
4301-104	clear EF/OH bldg of stored hardware	10	02FEB04	13FEB04	1,420	0.00											
431-1-2	Coil DC Cabling to link box (PCTB)-Dsn	153	13OCT05*	25MAY06	659	38,740.00										EA//DM =272hr ; EE//EM =56hr ; 41=39\$k ;	
431-1-4	Coil DC Cabling to link box(PCTB)-Procure	190	01SEP06*	07JUN07	591	52,804.46										EE//EM =40hr ; EE//SM =24hr ;	
431-1-6	Coil DC Cabling to (PCTB)-Install	108	08JAN07*	07JUN07	591	9,689.60										EA//DM =352hr ; EE//EM =136hr ;	
431-2-2	DC Cabling to Coils in TC-Dsn	149	13OCT05*	19MAY06	181	60,140.00										41=45\$k ;	
431-2-4	DC Cabling to Coils in TC-Procure	190	01JUN06*	07MAR07	174	60,160.01										EE//EM =80hr ; EE//SM =80hr ; EE//TB =80hr ;	
431-2-6	DC Cabling to Coils in TC-Install	108	27SEP06	07MAR07	174	30,012.22											
<b>432 - D-to-C Site DC Systems</b>																	
<b>Job: 4301 - DC Systems-RAMAKRISHNAN</b>																	
<b>FY03 Actual Cost</b>																	
4301-001	Apr-Sept MIE Cost	43*	01APR03A	30SEP03A		2,390.00											
<b>432 - D to C-Site DC Systems</b>																	
432-100	Prepare Tower SOW and IP for BOA design	10*	03NOV03A	26NOV03A		6,141.60										vankirk=24; raki=24 41=\$ 38 k	
432-105	BOA design tower supports	71*	12DEC03A	30MAR04	1,202	48,412.00										vankirk=56;raki=72 ee//sm=32; ee//tb=48	
432-110	Prep SOW and Requisition for tower installation	16	21JUL04	11AUG04	1,124	23,812.00										41=\$ 312 k	
432-115	Bid & Award	35	12AUG04	30SEP04	1,124	0.00										VANKIRK =152hr ; RAKI =80hr ;	
432-120	Install Tower Supports	74	01OCT04*	25JAN05	1,124	403,104.00										41=104.16\$k ;	
432-1-2	DC Cabling-Dsn	80	01MAR04*	21JUN04	1,124	28,046.40										41=11\$k ;	
432-1-4.0	Prepare SOW & Requisition for 1000MCM 5kv Cable	30	13AUG04*	24SEP04	1,087	0.00										41=11\$k ;	
432-1-4.1	Bid & Award - Cable	40	01JUL05*	26AUG05	898	0.00										41=477\$k ;	
432-1-4.2	Cable Delivery [A/1]	75	03OCT05*	25JAN06	874	135,928.80											
432-1-4.4	Prepare SOW & Requisition for Cable Installation	30	10AUG04*	21SEP04	1,104	0.00											
432-1-4.5	Bid & Award Cable Installation	40	02MAY05*	27JUN05	955	0.00											
432-1-4.7	Procure trays	20	01JUL05*	29JUL05	952	14,212.00											
432-1-4.8	Install Trays	41	01AUG05	27SEP05	952	14,212.00											
432-1-4.6	S/C Install Cable [A/1]	61	01FEB06	26APR06	870	622,485.00											

Run Date 22JUN04 11:02



ECP8

NCSX Baseline  
ECP 8

Sheet 34 of 49

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04										FY05										FY06										FY07										FY08										FY09																																																																																																																																																																																																																																																																																																																																																													
432-1-6	DC Cabling-Installation Support	140	03OCT05*	26APR06	870	29,992.80																																																																																																																																																																																																																																																																																																																																																																																																																
<b>433 - D-Site DC Systems</b>																																																																																																																																																																																																																																																																																																																																																																																																																						
<b>Job: 4301 - DC Systems-RAMAKRISHNAN</b>																																																																																																																																																																																																																																																																																																																																																																																																																						
<b>433 - D-Site DC Systems</b>																																																																																																																																																																																																																																																																																																																																																																																																																						
433-1-2	DC Cabling-Dsn	166	01OCT04*	03JUN05	421	73,961.60																																																																																																																																																																																																																																																																																																																																																																																																																
433-1-4	DC Cabling-Procure	75	07OCT05*	31JAN06	259	91,819.80																																																																																																																																																																																																																																																																																																																																																																																																																
433-1-6	DC Cabling-Install	100	03AUG06*	02JAN07	130	43,784.52																																																																																																																																																																																																																																																																																																																																																																																																																
433-2-4.0	Design Isolation switch	40	01MAR04*	23APR04	1,230	6,710.60																																																																																																																																																																																																																																																																																																																																																																																																																
433-2-4.1	Prep Spec and Requisition for Isolation Switch	30	26APR04	07JUN04	1,230	6,710.60																																																																																																																																																																																																																																																																																																																																																																																																																
433-2-4.2	Bid & Award Isolation Switch	30	08JUN04	20JUL04	1,230	0.00																																																																																																																																																																																																																																																																																																																																																																																																																
433-2-4.3	Deliver Isolation Switch	40	21JUL04	15SEP04	1,230	115,934.00																																																																																																																																																																																																																																																																																																																																																																																																																
433-2-4.4	Prep SOW and Requisition for IS installation	30	26APR04	07JUN04	1,270	6,710.60																																																																																																																																																																																																																																																																																																																																																																																																																
433-2-4.5	Bid & Award IS Installation	30	08JUN04	20JUL04	1,270	0.00																																																																																																																																																																																																																																																																																																																																																																																																																
433-2-4.6	Install Isolation Switch	40	16SEP04	10NOV04	1,230	85,451.90																																																																																																																																																																																																																																																																																																																																																																																																																
433-3-2	NSTX OH PS changes-Dsn	245*	01OCT04*	26SEP05	119	17,812.80																																																																																																																																																																																																																																																																																																																																																																																																																
433-3-6	NSTX OH PS changes-Install	180	03OCT05*	22JUN06	115	7,012.00																																																																																																																																																																																																																																																																																																																																																																																																																
433-3-8	NSTX OH PS changes-Commission	143	23JUN06	23JAN07	115	3,562.22																																																																																																																																																																																																																																																																																																																																																																																																																
433-4-2	NSTX TF Power Supply changes-Dsn	238*	01OCT04*	15SEP05	126	17,812.80																																																																																																																																																																																																																																																																																																																																																																																																																
433-4-6	NSTX TF Power Supply changes-Install	180	28SEP05*	19JUN06	118	7,010.04																																																																																																																																																																																																																																																																																																																																																																																																																
433-4-8	NSTX TF Power Supply changes-Commission	143	20JUN06	18JAN07	118	3,556.68																																																																																																																																																																																																																																																																																																																																																																																																																
<b>44 - Control and protection Systems</b>																																																																																																																																																																																																																																																																																																																																																																																																																						
<b>441 - Electrical Interlocks</b>																																																																																																																																																																																																																																																																																																																																																																																																																						
<b>Job: 4401 - Control &amp; Protection-RAMAKRISHNAN</b>																																																																																																																																																																																																																																																																																																																																																																																																																						
<b>441 - Electrical Interlocks</b>																																																																																																																																																																																																																																																																																																																																																																																																																						
441-1-2	C-site-Dsn	345*	01OCT04*	23FEB06	114	120,616.10																																																																																																																																																																																																																																																																																																																																																																																																																
441-1-4	C-site-Procure	149	30SEP05*	08MAY06	300	26,046.06																																																																																																																																																																																																																																																																																																																																																																																																																
441-1-6	C-site-Install	238	24FEB06*	07FEB07	114	161,027.72																																																																																																																																																																																																																																																																																																																																																																																																																
441-2-2	D-site-Dsn	345*	01OCT04*	23FEB06	120	65,417.43																																																																																																																																																																																																																																																																																																																																																																																																																
441-2-4	D-site-Procure	192	03OCT05*	11JUL06	176	18,217.80																																																																																																																																																																																																																																																																																																																																																																																																																
441-2-6	D-site-Install	192	24FEB06*	27NOV06	120	77,399.95																																																																																																																																																																																																																																																																																																																																																																																																																
441-2-8	D-site-Commission	123	31JUL06*	30JAN07	120	35,951.61																																																																																																																																																																																																																																																																																																																																																																																																																
441-3-2	D-to-C-site-Dsn	80	03OCT05*	01FEB06	128	25,800.00																																																																																																																																																																																																																																																																																																																																																																																																																
441-3-4	D-to-C-site-Procure	186*	07OCT05*	07JUL06	178	6,525.00																																																																																																																																																																																																																																																																																																																																																																																																																
441-3-6	D-to-C-site-Install	200	02FEB06*	13NOV06	128	23,744.24																																																																																																																																																																																																																																																																																																																																																																																																																
441-3-8	D-to-C-site-Commission	123	19JUL06*	18JAN07	128	17,889.95																																																																																																																																																																																																																																																																																																																																																																																																																

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule									
							FY04	FY05	FY06	FY07	FY08	FY09				
<b>442 - Kirk Key Interlocks</b>																
<b>Job: 4401 - Control &amp; Protection-RAMAKRISHNAN</b>																
<b>442 - Kirk Key Interlocks</b>																
442-1-2	Kirk Keys-Dsn	41	03OCT05*	30NOV05	289	32,100.00										
442-1-4	Kirk Keys-Procure	185	24OCT05*	21JUL06	130	13,050.00										
442-1-6	Kirk Keys-Install	68	24JUL06*	26OCT06	130	31,103.17										
442-1-8	Kirk Keys-Commission	62	27SEP06*	02JAN07	130	21,784.32										
<b>443 - Real Time Control Systems</b>																
<b>Job: 4401 - Control &amp; Protection-RAMAKRISHNAN</b>																
<b>443 - Real Time Control Systems</b>																
443-1-2	Develop Control Algorithms-Dsn	142	21APR06*	09NOV06	130	38,397.97										
<b>444 - Instrument Systems</b>																
<b>Job: 4401 - Control &amp; Protection-RAMAKRISHNAN</b>																
<b>444 - Instrument Systems</b>																
444-1-2	DC Current Transducers (DCCTs)-Dsn	124	13OCT05*	14APR06	126	15,100.00										
444-1-4	DC Current Transducers (DCCTs)-Procure	164	05DEC05*	01AUG06	191	46,980.00										
444-1-6	DC Current Transducers (DCCTs)-Install	160	17APR06*	01DEC06	126	35,115.07										
444-1-8	DC Current Transducers (DCCTs)-Commission	143	08JUN06*	08JAN07	126	16,521.62										
444-2-2	DC Potential Transducers (DCPTs)-Dsn	95	07OCT05*	28FEB06	119	30,200.00										
444-2-4	DC Potential Transducers (DCPTs)-Procure	207	30SEP05*	31JUL06	192	15,659.25										
444-2-6	DC Potential Transducers (DCPTs)-Install	200	01MAR06*	12DEC06	119	33,603.00										
444-2-8	DC Potential Transducers (DCPTs)-Commission	120	21JUL06*	17JAN07	119	16,697.40										
444-3-2	DC Shunts-Dsn	122*	01OCT04*	01APR05	415	14,844.00										
444-3-4	DC Shunts-Procure	224	29SEP05*	22AUG06	176	41,756.29										
444-3-6	DC Shunts-Install	130	20MAR06*	20SEP06	176	34,403.20										
444-3-8	DC Shunts-Commission	65	21SEP06*	22DEC06	131	17,077.81										
444-4-2	Signal Conditioning & Cabling-Dsn	99	23SEP05*	20FEB06	195	52,846.67										
444-4-4	Signal Conditioning & Cabling-Procure	188	13OCT05*	17JUL06	135	11,745.00										
444-4-6	Signal Conditioning & Cabling-Install	130	16MAY06*	16NOV06	135	29,050.34										
444-4-8	Signal Conditioning & Cabling-Commission	65	15SEP06*	18DEC06	135	21,559.32										
<b>445 - Coil protection Systems</b>																
<b>Job: 4401 - Control &amp; Protection-RAMAKRISHNAN</b>																
<b>445 - Coil Protection Systems</b>																
445-1-2	Ground Fault Protection-Dsn	142	01OCT04*	29APR05	282	21,040.00										
445-1-4	Ground Fault Protection-Procure	187	24NOV04*	26AUG05	199	3,876.00										
445-1-6	Ground Fault Protection-Install	223	05OCT05*	25AUG06	173	18,137.60										






Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule																	
							FY04	FY05	FY06	FY07	FY08	FY09												
445-1-8	Ground Fault Protection-Commission	65	05OCT06*	15JAN07	121	12,028.80																		
445-2-0	Overload Protection & Cabling-Prelim Dsn	131*	01MAR04*	01SEP04	1,279	89,287.20																		
445-2-1	Overload Protection & Cabling-Peer Review	0	02SEP04	01SEP04	1,279	0.00																		
445-2-2	Overload Protection & Cabling-FinalDsn	65	05OCT05*	13JAN06	120	37,740.00																		
445-2-4	Overload Protection & Cabling-Procure	136	30SEP05*	19APR06	173	36,537.32																		
445-2-6	Overload Protection & Cabling-Install	186	16JAN06*	05OCT06	120	40,522.14																		
445-2-8	Overload Protection & Cabling-Commission	65	09OCT06	17JAN07	119	24,268.80																		
<b>446 - Ground Fault Monitoring System</b>																								
<b>Job: 4401 - Control &amp; Protection-RAMAKRISHNAN</b>																								
<b>446 - Ground Fault Monitoring System</b>																								
446-1-2	GFMS-Dsn	190	03OCT05*	07JUL06	208	34,652.50																		
446-1-4	GFMS-Procure/Fab/Install	130	02OCT06*	11APR07	149	132,370.40																		
<b>45 - Power System Design and Integration</b>																								
<b>451 - System Design and Interfaces</b>																								
<b>Job: 4501 - Power Sys Dsn &amp; Integr-RAMAKRISHNAN</b>																								
<b>FY03 Actual Cost</b>																								
4501-001	Apr-Sept MIE Cost	43*	01APR03A	30SEP03A		112,340.00																		
<b>451 - System Design &amp; Interfaces</b>																								
4501-100	Design Drawings	171*	02FEB04*	30SEP04	1,259	69,832.00																		
4501-110	Calculations-Dsn	43*	02FEB04*	31MAR04	1,387	12,897.60																		
451-0-1	C-Site Decision	0	02FEB04	30JAN04*	1,430	0.00																		
451-0-2	Develop SRD	21*	02FEB04*	01MAR04	1,409	0.00																		
451-1-2	Calculations-Dsn	498*	01OCT04*	29SEP06	761	37,488.00																		
451-2-2	PDR Power system -Dsn	22*	01APR04*	30APR04	1,365	10,236.00																		
451-2-2.1	FDR Power system -Dsn	65	01OCT04*	12JAN05	1,194	10,520.00																		
451-2-20	PDR Electr Power system	0		30APR04	1,365	0.00																		
451-3-2	Drawings,changes,asbuilts -Elect Dsn Integration	756*	01OCT04*	11OCT07	503	275,076.00																		
451-4-2	FDR AC auxiliaries & grounding-Dsn	45	03OCT05*	06DEC05	965	10,700.00																		
451-6-2	FDR C-Site -Dsn	45	01OCT04*	06DEC04	1,214	21,040.00																		
451-7-2	FDR DC transmission-Dsn	20*	03MAY04*	28MAY04	1,345	10,236.00																		
451-7-20	FDR DC transmission	0		28MAY04	1,345	0.00																		
451-8-2	FDR D-Site -Dsn	45	01OCT04*	06DEC04	1,214	21,040.00																		
<b>452 - Electrical Systems Support</b>																								
<b>Job: 4501 - Power Sys Dsn &amp; Integr-RAMAKRISHNAN</b>																								
<b>452 - Electrical Systems Support</b>																								
452-1-2	Diagnostics AC Power Distr-Dsn	108*	11AUG05*	20JAN06	139	16,505.06																		

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule											
							FY04	FY05	FY06	FY07	FY08	FY09	Bar Chart					
452-1-4	Diagnostics AC Power Distr-Procure	248	05OCT05*	02OCT06	178	1,305.19										41=01\$ k ;		
452-1-6	Diagnostics AC Power Distr-Install	217	23JAN06	28NOV06	139	14,659.67										EE//EM =16hr ; EE//SM =16hr ; EE//TB =128hr ;		
452-1-8	Diagnostics AC Power Distr-Commission	65	23OCT06*	31JAN07	139	6,021.60										EE//EM =08hr ; EE//SM =16hr ; EE//TB =32hr ;		
452-2-2	Diagnostics sensor cabling-Dsn	97*	11AUG05*	05JAN06	237	23,748.58										EA/DM =160hr ; Raki =40hr ;		
452-2-4	Diagnostics sensor cabling-Procure	240	05OCT05*	20SEP06	186	2,610.00										41=02\$ k ;		
452-2-6	Diagnostics sensor cabling-Install	130	30MAY06*	01DEC06	136	20,556.31										EE//EM =24hr ; EE//SM =32hr ; EE//TB =160hr ;		
452-2-8	Diagnostics sensor cabling-Commission	65	26OCT06*	05FEB07	136	6,021.60										EE//EM =08hr ; EE//SM =16hr ; EE//TB =32hr ;		
<b>453 - System Testing (PTP's)</b>																		
<b>Job: 4501 - Power Sys Dsn &amp; Integr-RAMAKRISHNAN</b>																		
<b>453 - System Testing (PTP's)</b>																		
453-1-2	New Procedures	90	06OCT05*	20FEB06	215	68,000.00										EA/DM =160hr ; EE//EM =320hr ;		
453-1-4	Preop Testing-Procure test equip	160	10JUL06*	01MAR07	118	33,366.72										41=25\$ k ;		
453-1-8	Testing PTPs, ISTPs	100	09OCT06*	07MAR07	114	90,618.40										EE//SM =80hr ; EE//TB =376hr ; ee//em=288 ;		
<b>46 - FCPC Building Modifications</b>																		
<b>460</b>																		
<b>Job: 4601 - FCPC Bldg Mods-RAMAKRISHNAN</b>																		
<b>FY03 Actual Cost</b>																		
4601-001	Apr-Sept MIE Cost	43*	01APR03A	30SEP03A		1,300.00												
4601-100	Clear area in West wing SPS to HVAC equip	64*	01APR04*	30JUN04	1,323	24,226.00										vankirk=64; raki=48;41=\$ 1 k ee//sm=16; ee//tb=96		
460-2-4	Clear the small Vacuum prep lab -Procure	65	01OCT04*	12JAN05	1,129	646.00										41=01\$ k ;		
460-2-6	Clear the small Vacuum prep lab -Install	65	13JAN05	13APR05	1,129	12,464.00										EE//TB =160hr ;		
460-3-2	Floor & Wall Penetrations-Dsn	65	01OCT04*	12JAN05	392	2,968.80										VANKIRK =16hr ; Raki =08hr ;		
460-3-4	Floor & Wall Penetrations-Procure	65	13JAN05	13APR05	392	11,628.00										41=09\$ k ;		
460-3-6	Floor & Wall Penetrations-Install	65	14APR05	15JUL05	392	11,730.40										Raki =08hr ; EE//SM =16hr ; EE//TB =112hr ;		
460-4-2	Mechanical Modifications-Dsn	65	01APR05*	01JUL05	271	4,208.00										VANKIRK =16hr ; Raki =16hr ;		
460-4-4	Mechanical Modifications-Procure	65	05JUL05	04OCT05	271	2,584.80										41=02\$ k ;		
460-4-6	Mechanical Modifications-Install	65	05OCT05	13JAN06	271	6,858.40										EE//EM =08hr ; EE//SM =16hr ; EE//TB =48hr ;		
<b>51 - TCP/IP Infrastructure Systems</b>																		
<b>Job: 5801 -Central I&amp;C Integr &amp; Oversight-OLIARO</b>																		
51-01	FY04 LOE support	250*	01OCT03A	30SEP04	1,259	12,504.40										EC//EM =86hr ;		
51-02	FY05 LOE support	249*	01OCT04*	30SEP05	1,010	12,848.40										EC//EM =86hr ;		

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule											
							FY04	FY05	FY06	FY07	FY08	FY09						
51-10	Preliminary Design (Title I)	45	21AUG06*	23OCT06	123	6,246.40	EC//EM =40hr ;											
51-20	Final Network Design (Title II)	20	24OCT06	20NOV06	123	6,548.00	EC//EM =40hr ;											
51-30	Installation, Testing, Documentation (Title III)	120	21NOV06*	17MAY07	123	390,879.60	EA/DM =160hr ; EC//EM =520hr ; EE//SM =1,340hr ; 41=92\$K ;											
<b>52 - Central Instrumentation &amp; Control</b>																		
52-10	Preliminary Design (Title I)	45	06MAR06*	05MAY06	121	24,320.00	EC//EM =160hr ;											
52-20	Final Design (Title II)	87	08MAY06	08SEP06	121	97,280.00	EC//EM =640hr ;											
52-30	Installation, Testing, Documentation (Title III)	173	11SEP06*	21MAY07	121	456,439.69	EC//SM =600hr ; EC//EM =1,552hr ; 41=108\$K ;											
<b>53 - Data Acquisition &amp; Facility Computing</b>																		
53-10	Preliminary Design (Title I)	45	08MAR06*	09MAY06	119	48,640.00	EC//EM =320hr ;											
53-20	Final Design (Title II)	87	10MAY06	12SEP06	119	72,960.00	EC//EM =480hr ;											
53-30	Coding, Configuration, Testing (Title III)	173	13SEP06*	23MAY07	119	286,217.26	EC//EM =1,280hr ; 41=57.7\$K ;											
<b>54 - Facility Timing &amp; Synchronization</b>																		
54-10	Preliminary Design (Title I)	45	01JUN06*	03AUG06	119	36,480.00	EC//EM =240hr ;											
54-20	Final Design (Title II)	65	04AUG06	03NOV06	119	56,340.00	EC//EM =360hr ;											
54-30	Installation, Testing, Documentation (Title III)	135	06NOV06	23MAY07	119	259,211.60	EC//SM =700hr ; EC//EM =960hr ; 41=25\$K ;											
<b>55 - Real Time Plasma &amp; Power Supply Control Sys</b>																		
55-10	Preliminary Design (Title I)	45	01AUG06*	03OCT06	137	12,201.60	EC//EM =80hr ;											
55-20	Final Design (Title II)	20	04OCT06	31OCT06	137	13,096.00	EC//EM =80hr ;											
55-30	Installation, Testing, Documentation (Title III)	120	10NOV06	08MAY07	130	267,982.40	EC//EM =480hr ; EC//SM =1,200hr ; 41=53\$K ;											
<b>56 - Central Safety Interlock Systems</b>																		
56-10	Preliminary Design (Title I)	87	15MAY06*	15SEP06	136	24,320.00	EC//EM =160hr ;											
56-20	Final Design (Title II)	45	18SEP06	17NOV06	136	25,776.00	EC//EM =160hr ;											

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 Critical Activity

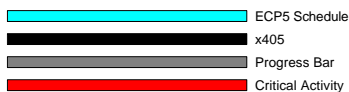
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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04												FY05												FY06												FY07												FY08												FY09											
56-30	Installation, Testing, Documentation (Title III)	108	20NOV06	30APR07	136	349,830.00																									EC//EM =780hr ; EE//SM =1,200hr ; 41=57\$K ;																																															
<b>57 - Control Room Facility</b>																																																																														
57-10	Preliminary Design (Title I)	45	01SEP06*	03NOV06	147	12,680.00																																					EC//EM =80hr ;																																			
57-20	Final Design (Title II)	20	06NOV06	05DEC06	147	13,096.00																																					EC//EM =80hr ;																																			
57-30	Installation, Testing, Documentation (Title III)	87	06DEC06	13APR07	147	93,938.00																																					EC//EM =160hr ; EE//SM =200hr ; EC//SM =300hr ; 41=11\$K ;																																			
<b>61 - Water Systems</b>																																																																														
<b>611 - C-Site Cooling System</b>																																																																														
<b>611 - C-Site Cooling System</b>																																																																														
615.011	Engr recommissioning of C-Site Water systems	44	03JUL06*	01SEP06	160	9,796.20																																					em//em=58																																			
615.021	Replace valves, resins, filters	65	06OCT06*	16JAN07	137	143,473.60																																					em//tb=216;41=\$92.3 k																																			
<b>612 - NB Water Cooling Systems</b>																																																																														
<b>612 - NB Water Cooling Systems</b>																																																																														
622.001	WBS 612 Preliminary design	79	30MAY06*	19SEP06	147	35,824.00																																					em//em=160; ea//dm=80																																			
622.011	WBS 612 Final Design	60	20SEP06	14DEC06	147	23,802.66																																					em//em=80; ea//dm=80																																			
622.021	WBS 612 Assembly/Fabrication/Installation	80	26JAN07*	17MAY07	123	180,299.92																																					em//em=260; em//tb=620; 41=\$58.71k																																			
<b>613 - Vacuum Pumping System</b>																																																																														
<b>613 - Vacuum Pumping System</b>																																																																														
623.010	LOE WBS 612	410*	06OCT04*	31MAY06	846	10,033.20																																					BLANCHARD=60																																			
623.011	Design WBS 612	118	01JUN06*	15NOV06	133	22,793.02																																					em//em=80; ea//dm=80																																			
632.021	WBS 612 Assembly/Fabrication/Installation	40	13DEC06*	14FEB07	116	67,180.00																																					em//em=80; em//tb=288; 41=\$20.5k																																			
<b>614 - Bakeout Water System</b>																																																																														
<b>614 - Bakeout Water System</b>																																																																														
625.001	WBS 614 Preliminary design	58	03OCT05*	23DEC05	368	12,178.00																																					em//em=20; ea//dm=80																																			
625.011	WBS 614 Final Design	62	03JAN06	29MAR06	368	12,178.00																																					em//em=20; ea//dm=80																																			
625.021	WBS 614 Assembly/Fabrication	40	26MAR07	18MAY07	122	14,153.80																																					em//em=40; em//tb=42; 41=\$2.4k																																			
<b>62 - Cryogenic Systems</b>																																																																														
<b>621 - LN2-LHe Supply System</b>																																																																														
<b>621 - LN2-LHe Supply System</b>																																																																														
631-001	Preliminary Design	65	19MAY06*	21AUG06	137	15,032.10																																					EM//EM =89hr ;																																			
631-010	Final Design	65	22AUG06	21NOV06	137	35,902.27																																					EM//EM =89hr ; EA//DM =176hr ;																																			

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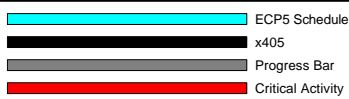
Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule										
							FY04	FY05	FY06	FY07	FY08	FY09					
631-015	Fab/Assy/Installation	65	08FEB07*	09MAY07	129	82,963.10											
631-020	Procurement	88	06DEC06*	16APR07	129	118,976.00											
<b>622 - LN2 Coil Cooling Supply</b>																	
<b>622 - LN2 Coil Cooling Supply</b>																	
632-001	Preliminary Design	65	15MAY06*	15AUG06	116	15,032.10											
632-010	Final Design	65	16AUG06	15NOV06	116	29,337.35											
632-015	Fab/Assy/Installation	110	18DEC06*	29MAY07	116	114,018.60											
632-020	Procurement	130	16NOV06*	29MAY07	116	116,001.60											
<b>623 - GN2 Cryostat Cooling System</b>																	
<b>623 - GN2 Cryostat Cooling System</b>																	
633-001	Preliminary Design	65	12APR06*	13JUL06	139	15,032.10											
633-010	Final Design	65	14JUL06	13OCT06	139	24,114.72											
633-015	Fab/Assy/Installation	88	11JAN07*	14MAY07	126	72,933.10											
633-020	Procurement	130	02NOV06*	14MAY07	126	108,092.40											
<b>63 - Utility Systems</b>																	
<b>63 - Utility Systems</b>																	
640.010	FY04/05 LOE support	489*	06OCT04*	21SEP06	767	16,749.14											
640.011	Design GN2, Air & Vent Systems	117	26MAY06*	09NOV06	150	31,706.87											
640.021	Assembly/Fabrication	40	19DEC06*	20FEB07	125	72,413.80											
<b>64 - PFC/VV Heating &amp; Cooling</b>																	
<b>640 - PFC/VV Heating &amp; Cooling</b>																	
650.001	Preliminary Design	50	26MAY06*	07AUG06	122	40,172.00											
650.005	Final Design	65	08AUG06	07NOV06	122	118,749.29											
650.010	Lab Fab/Assy/Installation	130	08NOV06*	18MAY07	122	286,477.00											
650.012	Procured Hardware/Material	130	08NOV06*	18MAY07	122	172,650.40											
650.015	Procured Installation/Assy	43	21MAR07*	18MAY07	122	10,816.00											
<b>65 - Facility Systems Integration</b>																	
<b>612 - NB Water Cooling Systems</b>																	
<b>Job: 6501 - Facility Systems Integration-DUDEK</b>																	
<b>FY03 Actual Cost</b>																	
6501-001	Apr-Sept MIE Cost PPPL	0	01APR03A	30SEP03A		9,380.00											

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year									
							FY04	FY05	FY06	FY07	FY08	FY09				
<b>650 - Facility Systems Integration</b>																
<b>Job: 6163 - Facility Systems Support FY04</b>																
65-03	LOE WBS 6	250*	01OCT03A	30SEP04	1,259	32,220.00	Kalish=100;Gettelfinger=100									
<b>71 - Shield Wall Seismic Modifications</b>																
<b>Job: 7101 - Shield Wall Modif Design-PERRY</b>																
<b>FY03 Actual Cost</b>																
7101-000	Apr-Sept MIE Cost PPPL	66	01APR03A	30SEP03A		32,150.00										
<b>72 - Control Room Refurbishment</b>																
<b>Job: 7201 - Control Room Walls&amp;Floors-PERRY</b>																
710.001	Block Wall east side control room	41	01JUN04*	28JUL04	1,284	39,512.00	ee/tb=200; 41=\$8k									
711B.050	Complete Control Room Flooring	20	29JUL04	25AUG04	1,284	8,107.20	ee/sm Edwards= 24 hrs; em/tb NB techs 72 hrs									
<b>73 - Platform Design &amp; Fabrication</b>																
<b>730 - Test Cell &amp; Basement Assembly Operations</b>																
<b>Job: 7301 - Platform Design &amp; Fab-PERRY</b>																
712.008	Update Platform Specification	12*	02FEB04*	17FEB04	1,354	6,460.00	Perry=40									
712.009	Platform PDR	0		17FEB04*	1,354	0.00	em/tb mech shop =360 hrs;41=\$1k									
711A.040	Platform nut plates	63*	02JUL04*	30SEP04	1,259	28,922.00	PERRY=140;ea/dm=300									
712.010	Final Design	64*	01JUL04*	30SEP04	1,283	54,170.00										
<b>Job: 7401 - TC Prep &amp; Mach Assy Planning-PERRY</b>																
712.020	Fab & Assemble Platform	132	03OCT05*	10APR06	212	24,296.30	PERRY=410;em/sm=23;em/tb=250									
712.030	Miscs Hardware/Material	132	03OCT05*	10APR06	896	45,675.00	41=\$35k									
<b>74 - Machine Assembly Planning and Oversight</b>																
<b>740 - Machine Assembly Planning and Oversight</b>																
<b>Job: 7401 - TC Prep &amp; Mach Assy Planning-PERRY</b>																
<b>Test Cell Modifications &amp; Upgrades</b>																
613.030	Test Cell copper ground plane cuts	25	03MAY04*	07JUN04	1,198	10,490.00	em/tb=120; 41=\$1k									
713.010	General procurements	128*	01APR04*	30SEP04	1,283	19,110.00	41=\$ 15 k									
7502-000	Outlet Design	65*	02FEB04*	30APR04	1,199	25,272.00	em/sm=240									
7502-001	Test Cell 110v outlets	40	01JUL04*	26AUG04	1,283	14,268.80	160 hrs powers;									
7502-002	Test Cell 208v outlets	40	01JUL04*	26AUG04	1,283	7,134.40	80 hrs powers									
7502-010	Ready Rooms (under control room) 110v outlets	40	01JUL04*	26AUG04	1,157	7,134.40	80 hrs powers									

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year															
							FY04	FY05	FY06	FY07	FY08	FY09										
7502-011	Cable Removal in test cell (S04335-32)	0*	01OCT03A	31OCT03A		9,937.20																
7502-025	TC Floor penetration covers	42	03NOV03A	26NOV03A		16,848.00																
EXFAC001	Complete Crane Modifications (S04354)	0*	02FEB04A	30JAN04A		37,608.48																

**741 - Planning Prior to Machine Assembly**

**Job: 7401 - TC Prep & Mach Assy Planning-PERRY**

FY03 Actual Cost																						
7401-001	Apr-Sept MIE Cost PPPL	66	01APR03A	30SEP03A		131,680.00																
Oversight and Supervision																						
711A.020	LOE FY04	256*	01OCT03A	30SEP04	1,283	149,894.50																
FED/Infrastructure Support (non Project cost)																						
613.010	Remove Shield Walls ** GPP **	86*	02FEB04*	01JUN04	1,368	0.00																
613.015	Fabricate New Bottom Course of Blocks **GPP**	87*	15MAR04*	15JUL04	1,337	0.00																
613.017	Install New Bottom Course **GPP**	107*	02AUG04*	04JAN05	1,219	0.00																
613.020	Remove south PLT shielding (cc 7230)	111*	12JAN04A	15JUN04	1,358	0.00																
613.025	Dispose of old south PLT shielding **GPP**	44*	15JUN04*	16AUG04	1,315	0.00																
EXFAC003	Clear PBX control room & Safe PBX (cc7230)	110*	27JAN03A	30JUN03A		0.00																
EXFAC004	Remove Fire protection PLT wall (cc7230)	21	01MAY03A	09MAY03A		0.00																
EXFAC005	Remove Fire Protection under platform (cc7230)	21	01APR03A	30APR03A		0.00																
EXFAC006	Remove Fire Protection Control rm walls(cc7230)	21	01MAY03A	09MAY03A		0.00																
EXFAC007	Remove PBX Base Plates cc7230)	45*	01MAR04*	30APR04	1,174	0.00																
GPP001	GPP-Upgarde C-Site central chilled wtr plant*TBD	1	01OCT02A	01OCT02A		0.00																
GPP004	GPP-Roofing Design	171*	02FEB04*	30SEP04	1,010	0.00																
GPP004.1	GPP-Roofing Install	249*	01OCT04*	30SEP05	1,010	0.00																
GPP005	GPP-Test Cell lighting Design	64*	01APR04*	30JUN04	1,259	0.00																
GPP005.1	GPP-Test Cell lighting Install	64	01JUL04	30SEP04	1,259	0.00																
GPP006	GPP-Test Cell HVAC/dew point control Design	120	01OCT04*	30MAR05	1,011	0.00																
GPP006.1	GPP-Test Cell HVAC/dew point control Install	128	31MAR05	29SEP05	1,011	0.00																
GPP007	GPP-C-Site elevators Design	64	02FEB04*	29APR04	1,302	0.00																
GPP007.1	GPP-C-Site elevators Install	64	30APR04	30JUL04	1,302	0.00																
GPP008	GPP-Fire suppression high bay design	64	01APR04*	30JUN04	1,259	0.00																
GPP008.1	GPP-Fire suppression high bay install	64	01JUL04	30SEP04	1,259	0.00																
GPP009	Control Room Lights & Outlets design	121*	01OCT04*	31MAR05	1,010	0.00																
GPP009.1	Control Room Lights & Outlets install	64	01APR05	30JUN05	1,010	0.00																
GPP010	Control Room HVAC Design	121*	01OCT04*	31MAR05	1,010	0.00																
GPP010.1	Control Room HVAC Install	64	01APR05	30JUN05	1,010	0.00																
GPP011	Control Room Ceiling Design	64	01APR05*	30JUN05	1,010	0.00																



Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Gantt Chart															
							FY04	FY05	FY06	FY07	FY08	FY09										
GPP011.1	Control Room Ceiling Install	64	01JUL05	30SEP05	1,010	0.00																
GPP012	Control Rm Fire Detection & Suppression Design	121*	01OCT04*	31MAR05	1,010	0.00																
GPP012.1	Control Rm Fire Detection & Suppression Install	64	01APR05	30JUN05	1,010	0.00																
<b>742 - Construction Management</b>																						
<b>Job: 7401 - TC Prep &amp; Mach Assy Planning-PERRY</b>																						
<b>Project Scope</b>																						
714.010	LOE FY05	249	01OCT04*	30SEP05	522	236,807.20																
714.020	LOE FY06 prior to assy starting	122	03OCT05	31MAR06	522	118,111.86																
714.030	LOE FY07 thru first plasma	366	03APR06	14SEP07	522	542,474.94																
714.031	WBS 7 mgt stretch out cost	180*	11SEP07*	30MAY08	346	287,396.72																
<b>75 - Test Cell and Basement Assembly Operations</b>																						
<b>750 - Test Cell &amp; Basement Assembly Operations</b>																						
<b>7501 - Construction Support Crew</b>																						
7501-05	Construction Support Crew during machine assy	356	05JAN06	04JUN07	112	794,815.37																
7501-06	Construction Support Crew during e-beam mapping	41	22AUG07	18OCT07	498	94,025.50																
7501-07	Construction Support Crew during cryostat instl	40	05OCT07	03DEC07	468	92,837.72																
<b>7502 - Test Cell Facility Preparations</b>																						
7502-020	Resurface TC floor	42	04OCT04*	02DEC04	1,132	30,248.00																
7502-030	TC Floor firesealing	42	03DEC04*	09FEB05	1,132	12,996.00																
7502-035	Control room firesealing	42	10FEB05*	08APR05	1,132	8,664.00																
<b>7503 - Machine Assembly</b>																						
730.1000	Begin Assembly Activities	0	18JUL06*		124	0.00																
730.1020	Install & Level Support Base Plates	15	18JUL06	07AUG06	124	34,504.00																
730.1030	Install/Level Machine Support Columns	25	08AUG06	12SEP06	124	51,756.00																
730.1040	Install Platform	55	13SEP06	30NOV06	124	231,277.87																
730.1050	Install Lighting, Fire Det/Supprs under platform	160	01DEC06	24JUL07	559	70,761.60																
730.1060	Install Lower Cryostat Floor	5	27SEP06	03OCT06	124	17,784.80																
730.1070	Install Lower PF 3,4,5&6 into prelim position	5	04OCT06	10OCT06	124	18,584.00																
730.1081	1st Field Period Assembly-Position	6	11OCT06	18OCT06	124	22,300.80																
730.1081X	*****PBR add1st Field Period Assembly-Position	6	19OCT06	26OCT06	124	22,300.80																
730.1082	1st Field Period Assembly-Weld	4	27OCT06	01NOV06	124	14,867.20																

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	FY04												FY05												FY06												FY07												FY08												FY09											
730.1083	1st Field Period Assembly-Leak Check	5	02NOV06	08NOV06	124	18,584.00																																					em//sm=40; em//tb=160																																			
730.1091	2nd Field Period Assembly-Position	6	09NOV06	16NOV06	124	22,300.80																																					em//sm=48; em//tb=192																																			
730.1091X	****PBR add2nd Field Period Assembly-Position	6	17NOV06	28NOV06	124	22,300.80																																					em//sm=48; em//tb=192																																			
730.1092	2nd Field Period Assembly-Weld	4	29NOV06	04DEC06	124	14,867.20																																					em//sm=32; em//tb=128																																			
730.1093	2nd Field Period Assembly-Leak Check	5	05DEC06	11DEC06	124	18,584.00																																					em//sm=40; em//tb=160																																			
730.1101	3rd Field Period Assembly-Position	12	05JAN07	22JAN07	112	44,601.60																																					em//sm=96; em//tb=384																																			
730.1101X	*****pbr adrd Field Period Assembly-Position	12	23JAN07	07FEB07	112	44,601.60																																					em//sm=96; em//tb=384																																			
730.1102	3rd Field Period Assembly-Weld	4	08FEB07	13FEB07	112	14,867.20																																					em//sm=32; em//tb=128																																			
730.1103	3rd Field Period Assembly-Leak Check	5	14FEB07	20FEB07	112	18,584.00																																					em//sm=40; em//tb=160																																			
730.1130	Make Final Vacuum Pump Connections to VV	13	21FEB07	09MAR07	112	37,168.00																																					em//sm=80; em//tb=320																																			
730.1139	Begin Vac Vsl Pumpdown	0	12MAR07		112	0.00																																																																								
730.1140	PTP Pumpdown & leak check VV (WBS 220-025)	10	12MAR07	23MAR07	112	47,012.00																																					support labor em//em=40; em//sm=160; em//tb=240																																			
730.1150	Raise lower PF-3,4,5&6 coils into final position	3	26MAR07	28MAR07	112	11,615.00																																					em//sm=25; em//tb=100																																			
730.1170	Install PF Solenoid into position (U/L 1&2 PF)	4	29MAR07	03APR07	112	13,938.00																																					em//sm=30; em//tb=120																																			
730.1175	Install Upper PF-3,4,5 & 6 coils	3	04APR07	06APR07	112	11,615.00																																					em//sm=25; em//tb=100																																			
730.1180	Install Bus connections to coil sys (WBS 431-131)	40	09APR07	04JUN07	112	0.00																																																																								
730.1210	Connect Cooling System (WBS 61)	30	26MAR07	04MAY07	132	0.00																																																																								
730.1230	Complete Bus connections (WBS 4 )	40	09APR07	04JUN07	112	37,168.00																																					em//sm=80; em//tb=320																																			
730.1249	Operational Readiness Assessment	20	07MAY07	04JUN07	112	0.00																																																																								
730.1250	Operational Readiness	0	04JUN07		112	0.00																																																																								
730.8074	Begin Cryostat Installation	0	05OCT07		112	0.00																																																																								
730.8075	Prep Cryostat for installation	10	05OCT07	18OCT07	112	66,128.00																																																																								
730.8100	Cryo stat installation & Test & Cooldown	20	19OCT07	15NOV07	112	132,256.00																																																																								
730.8200	Cold Power Test PTP	10	16NOV07	03DEC07	112	66,128.00																																																																								

**76 - Tooling Design & Fabrication**

713.020	Lab Fab/Assy/Installation	764*	01OCT04*	28SEP07	519	29,973.45																																					PERRY=80;em//sm=42;em//tb=320																							
713.030	Tooling,assy fixtures,misc equipt	383*	03APR06*	28SEP07	519	80,177.55																																					41=\$60k																							
713.040	General procurements	383*	03APR06*	28SEP07	519	60,133.16																																					41=\$45k																							
713.050	Welding tools, materials & equipt	383*	03APR06*	28SEP07	519	53,451.70																																					41=\$40k																							

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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year									
							FY04	FY05	FY06	FY07	FY08	FY09				
<b>77 - Measurement Systems</b>																
780.000	No additional tools/devices needed.	1,106*	02FEB04	30MAY08	348	0.00										
<b>81 - Project Management and Control</b>																
<b>810 - Project Management &amp; Control</b>																
<b>Job: 8101 - Project Management &amp; Control-NEILSON</b>																
<b>FY03 Actual Cost</b>																
810.001	Apr-Sept MIE Cost PPPL	128*	01APR03A	30SEP03A		387,340.00										
810.009	PDR Support	3*	01OCT03A	31OCT03A		41,163.08										
810.010	CD-3 Readiness - Update Assy & Installation plan	65	01APR04*	01JUL04	1,346	0.00										
810.015	CD-3 Readiness - Update resource loaded schedule	65	01APR04*	01JUL04	1,346	0.00										
810.020	CD-3 Readiness - Update risk management plan	65	01APR04*	01JUL04	1,346	0.00										
810.025	CD-3 Readiness - Update Value mgt/engr doc.	65	01APR04*	01JUL04	1,346	0.00										
810.028	CD-3 Readiness - Update Project Controls doc.	65	01APR04*	01JUL04	1,346	0.00										
810.030	CD-3 Readiness - Update Acquisition Strategy	65	01APR04*	01JUL04	1,346	0.00										
810.035	CD-3 Readiness - Update Proj Exec Plan (PEP)	65	01APR04*	01JUL04	1,346	0.00										
810.040	CD-3 Readiness - Assess/Update Integr Proj Team	65	01APR04*	01JUL04	1,346	0.00										
810.002	Project Management Office PPPL FY04	256*	01OCT03A	30SEP04	1,283	689,154.82										
810.003	Project Management Office PPPL FY05	255*	01OCT04*	30SEP05	1,028	538,759.58										
810.004	Project Management Office PPPL FY06	254*	03OCT05*	29SEP06	519	492,727.12										
810.004X	Project Management Office PPPL FY07	65	02OCT06	04JAN07	519	140,228.10										
810.005	Project Management Office PPPL FY07	190*	05JAN07	28SEP07	519	341,782.20										
810.900	Project Management Office PPPL 1 mo SO	21	01OCT07*	29OCT07	351	42,310.60										
810.990	Project Management Office PPPL 1 mo SO	21	30OCT07*	27NOV07	351	42,310.60										
810.991	Project Management Office PPPL 1 mo SO	21	28NOV07*	31DEC07	351	42,310.60										
810.992	Project Management Office PPPL 1 mo SO	21	02JAN08*	30JAN08	351	42,310.60										
810.993	Project Management Office PPPL 1 mo SO	21	31JAN08*	28FEB08	351	42,310.60										
810.994	Project Management Office PPPL 1 mo SO	21	29FEB08*	28MAR08	351	42,310.60										
810.995	Project Management Office PPPL 1 mo SO	21	31MAR08*	28APR08	351	42,310.60										
810.996	Project Management Office PPPL 1 mo SO	21	29APR08*	27MAY08	351	42,310.60										
<b>Job: 8102 - NCSX MIE Management ORNL-LYON</b>																
<b>FY03 Actual Cost</b>																
810.101	Apr-Sept MIE Cost ORNL	129*	01APR03A	30SEP03A		58,600.00										





Run Date	22JUN04 11:02	 ECP5 Schedule x405  Progress Bar  Critical Activity	ECP8	NCSX Baseline ECP 8	Sheet 46 of 49
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Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule											
							FY04	FY05	FY06	FY07	FY08	FY09						
810.102	Project Management Office ORNL FY04	256*	01OCT03A	30SEP04	1,283	120,228.22	ORNLRM =358hr; Akers=178;Benson=178 ORNL41 =03\$ ; ORNL35 =04\$ ;											
810.103	Project Management Office ORNL FY05	255*	01OCT04*	30SEP05	1,028	85,894.36	ORNLRM =180hr; Benson=143;Akers=178 ORNL41 =02\$ ; ORNL35 =03\$ ;											
810.104	Project Management Office ORNL FY06	254*	03OCT05*	29SEP06	519	49,323.49	ORNLRM =180hr ORNL41 =2\$ Benson=89											
810.104X	Project Management Office ORNL FY06	65	02OCT06	04JAN07	519	14,321.54	ORNLRM =45hr ORNL41 =2\$ Benson=22											
810.105	Project Management Office ORNL FY07	190*	05JAN07	28SEP07	519	33,631.32	ORNLRM =178											
810.901	Project Management Office ORNL 1 mo SO	21	02OCT07*	30OCT07	350	2,834.10	ORNLRM =15hr											
810.980	Project Management Office ORNL 1 mo SO	21	31OCT07*	28NOV07	350	2,834.10	ORNLRM =15hr											
810.981	Project Management Office ORNL 1 mo SO	21	03DEC07*	02JAN08	350	2,834.10	ORNLRM =15hr											
810.982	Project Management Office ORNL 1 mo SO	21	03JAN08*	31JAN08	350	2,834.10	ORNLRM =15hr											
810.983	Project Management Office ORNL 1 mo SO	21	01FEB08*	29FEB08	350	2,834.10	ORNLRM =15hr											
810.984	Project Management Office ORNL 1 mo SO	21	03MAR08*	31MAR08	350	2,834.10	ORNLRM =15hr											
810.985	Project Management Office ORNL 1 mo SO	21	01APR08*	29APR08	350	2,834.10	ORNLRM =15hr											
810.986	Project Management Office ORNL 1 mo SO	21	30APR08*	28MAY08	350	2,834.10	ORNLRM =415hr											
<b>82 - Project Engineering</b>																		
<b>820 - Project Engineering</b>																		
<b>Job: 8202 - Engr Mgmt &amp; Sys Eng Support-REIERSEN</b>																		
<b>FY03 Actual Cost</b>																		
820.110	Apr-Sept MIE Cost PPPL	128*	01APR03A	30SEP03A		295,530.00												
820.002	LOE FY04	256*	01OCT03A	30SEP04	1,283	626,751.30	Reiersen =1467hr 35=8\$ k ;Dudek/Gentile=604; Such=86 41=\$30 k; Simmons=1326											
L4-200	PDR	0		30JAN04*	1,410	0.00	▼											
L4-217	EIR	0		30JAN04*	1,410	0.00	▼											
M-0100	CD-2 CD-3A	0		27FEB04*	1,410	0.00	▼											
M-0115	CD-3	0		30SEP04*	1,259	0.00	▼											
M-0120	CD-4	0		30MAY08*	0	0.00	▼											
<b>Job: 8203 - Design Integration-REIERSEN</b>																		
<b>FY03 Actual Cost</b>																		
820.150	Apr-Sept MIE Cost PPPL	128*	01APR03A	30SEP03A		178,750.00												
820.200	LOE FY04	256*	01OCT03A	30SEP04	1,283	257,272.80	Brown=1036; Steill= 863											
<b>Job: 8204 - Systems Analysis-REIERSEN</b>																		
<b>FY03 Actual Cost</b>																		
820.173	Apr-Sept MIE Cost PPPL	128*	01APR03A	30SEP03A		44,620.00												
820.174	LOE FY04	172*	01OCT03A	30SEP04	1,283	150,254.50	Brooks=935											

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Schedule									
							FY04	FY05	FY06	FY07	FY08	FY09				
1501-193	Perform seismic analyses	30	02FEB04	12MAR04	1,424	0.00										
8204.01	Assess magnetic material in test cell	56*	02FEB04*	19APR04	125	38,568.00	Jun=240 hrs									
8204.02	Model effects local high MU regions on MCWF	29	20APR04	28MAY04	125	19,284.00	Jun=120 hrs									
820.003	Proj engr,Sys Integr.,Designers, Deputy PM FY05	255*	01OCT04*	30SEP05	1,028	933,340.30	EA/EM =3107hr ; EA/DM =863hr ; 35=07\$k ; em/em=604; ee/am=259 fc/em=1061									
820.004	Proj engr,Sys Integr.,Designers, Deputy PM FY06	254*	03OCT05*	29SEP06	348	870,153.80	EA/EM =2762hr ; EA/DM =863hr ; 35=05\$k ; em/em=604; ee/am=432 fc/em=884									
820.004X	Proj engr,Sys Integr.,Designers, Deputy PM FY07	65	02OCT06	04JAN07	348	240,404.50	EA/EM =690hr ; EA/DM =215hr ; 35=05\$k ; em/em=6150; ee/am=108 fc/em=221									
820.004Z	Proj engr,Sys Integr.,Designers, Deputy 8mo s.o.	187	05JAN07	25SEP07	348	692,941.22	EA/EM =690hr ; EA/DM =215hr ; 35=05\$k ; em/em=6150; ee/am=108 fc/em=221									
820.005	Proj engr,Sys Integr.,Designers, Deputy PM FY07	174*	26SEP07*	30MAY08	348	375,239.54	EA/EM =1,035hr ; em/em=449 35=03\$k ; ee/am=224; fc/em=354									
<b>84 - Project Physics</b>																
<b>840 - Project Physics</b>																
<b>Job: 8401 - Project Physcis-ZARNSTORFF</b>																
<b>FY03 Actual Cost</b>																
840.201	Apr-Sept MIE Cost PPPL	128*	01APR03A	30SEP03A		210,270.00										
840.202	Project Physics/Engr Analysis FY04	256*	01OCT03A	30SEP04	1,283	99,806.20	Zarnstorff=636 41=3\$k ; 35=01\$k									
840.203	Project Physics/Engr Analysis FY05	255*	01OCT04*	30SEP05	1,028	95,530.00	r///rms=590;41=\$3 k;35=\$1 k									
<b>Job: 8402 - Project Physics MIE ORNL-LYON</b>																
<b>FY03 Actual Cost</b>																
840.301	Apr-Sept MIE Cost ORNL	152*	01APR03A	30SEP03A		40,980.00										
840.302	Project Physics/Engr Analysis FY04	256*	01OCT03A	30SEP04	1,283	61,110.96	Lazarus = 178+178									
<b>85 - Integrated Systems Testing</b>																
920.001	Procedure and Document Preparation	257	03APR06*	11APR07	129	458,003.27	em/em=1580;em/sm=1580									
920.004	Begin Start-up Testing	0	05JUN07		112	0.00										
920.005	Start-up Testing	55	05JUN07	21AUG07	112	390,743.50	em//em=610, ee//em=205, ec//em=265 em//sm=305, ee//sm=530, em//tb=265 r///rm2=470									
920.010	Power Testing and E-Beam Mapping	41	22AUG07	18OCT07	112	308,663.69	em//em=480, ee//em=160, ec//em=208 em//sm=240, ee//sm=416, r///rm2=368 em//tb=208									
920.020	Final ISTP	10	04DEC07	17DEC07	112	67,553.80	em//em=110, ee//sm=35, ec//em=47 em//sm=55, ee//sm=94, r///rm2=47 em//tb=82									
730.9000	First Plasma	0		30MAY08*	0	0.00										

Activity ID	Activity Description	Orig Dur	Baseline Start	Baseline Finish	Total Float	Budgeted Cost (loaded without Conting)	Fiscal Year					
							FY04	FY05	FY06	FY07	FY08	FY09
<b>PPPL Allocations</b>												
<b>PPPL Allocations</b>												
<b>Job: 8998 - Allocations</b>												
<b>FY03 Actual Cost</b>												
99.03	Apr-Sept MIE Cost PPPL	128*	01APR03A	30SEP03A		60,670.00						
99.04	PPPL Allocations FY04	256*	01OCT03A	30SEP04	1,283	265,920.20						
99.05	PPPL Allocations FY05	255*	01OCT04*	30SEP05	1,028	214,990.60		54=153.8				
99.06	PPPL Allocations FY06	254*	03OCT05*	29SEP06	774	214,619.50		54=123.7				
99.07	PPPL Allocations FY07	190*	02OCT06*	29JUN07	519	170,232.95		54=123.7				
99.07X	PPPL Allocations FY07	65*	02JUL07*	28SEP07	519	56,885.00		54=92.77				
											54=31	
<b>+ Contingency</b>												
		935	01OCT04	30MAY08	348	14,180,000.00						

Run Date 22JUN04 11:02

 ECP5 Schedule  
 x405  
 Progress Bar  
 Critical Activity

ECP8

NCSX Baseline  
ECP 8

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