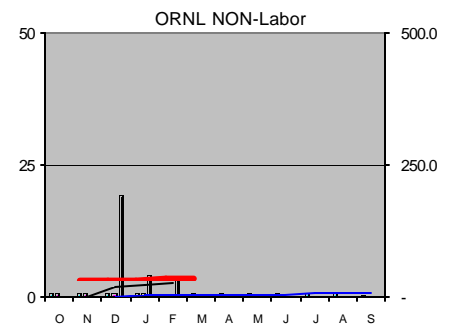
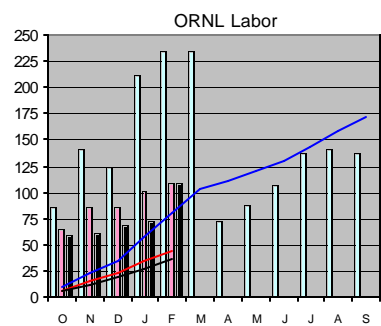
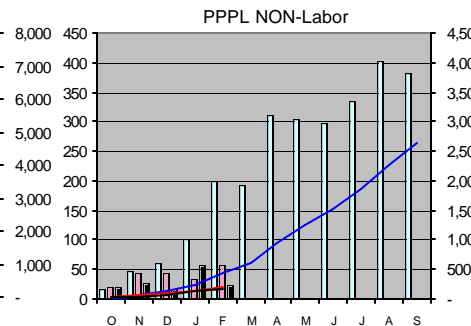
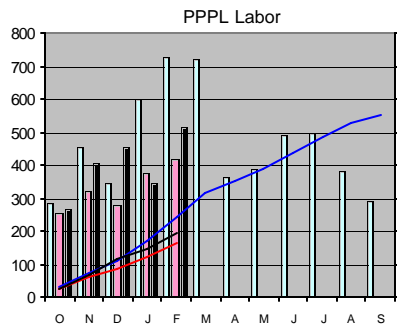
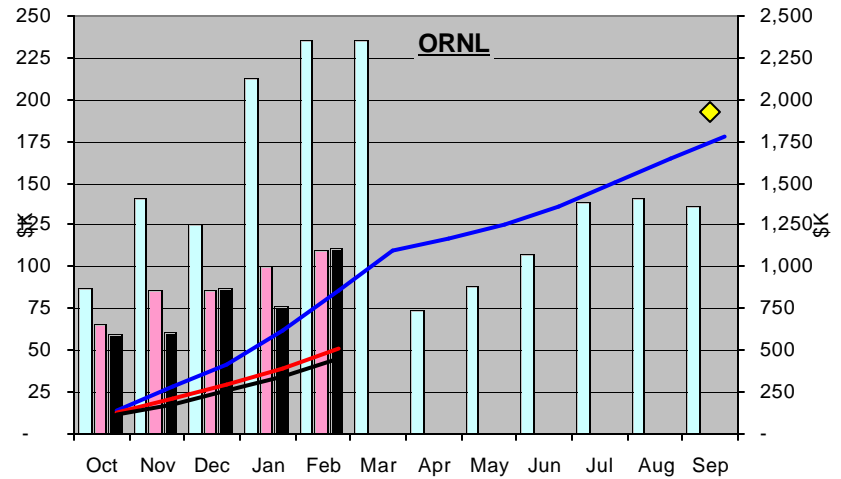
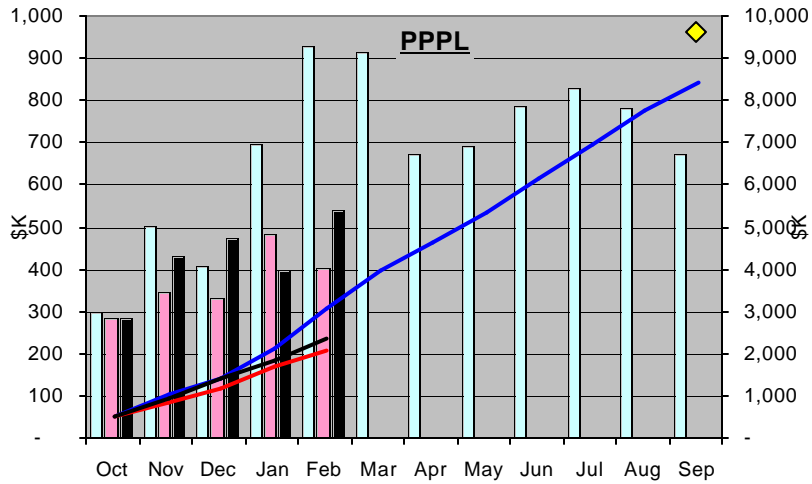
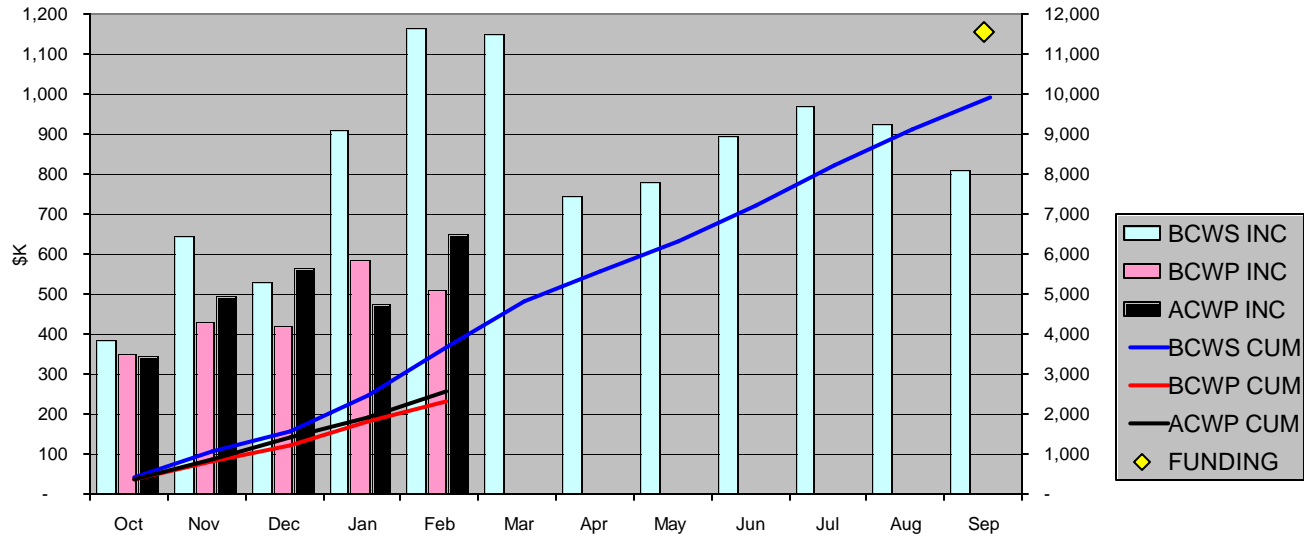


NCSX PPPL/ORNL MIE FY 2003 Cost Performance



Princeton University Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

NCSX

**** Fiscal Year 03 only ****

FEBRUARY FY03

	CURRENT PERIOD			CUMULATIVE TO DATE							FY03 Budget Baseline	Forecast	Vari
	Budgeted Cost			Budgeted Cost			VARIANCES						
	BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI			
PPPL and ORNL	\$K			\$K							\$K	\$K	
Advanced Conceptual Design													
1 - Stellarator Core Systems	885	320	403	2,417	1,415	1,498	-1,001	.59	-83	.94	7,061	7,462	-401
11 In-Vessel Components	6			8	0		-8	.05	0		18	22	-4
1101 - Limiter Advanced Concep Design	6			8	0		-8	.05	0		18	22	-4
1102 - Limiter Prelim & Final Design													
12 Vacuum Vessel Systems	168	22	58	400	129	148	-271	.32	-19	.87	1,106	1,714	-608
1201 - Vacuum Vessel Dsn	104	21	37	284	85	115	-198	.30	-30	.74	378	269	109
1202 - Vacuum Vessel R&D	65	1	21	116	44	33	-72	.38	11	1.32	625	1,324	-699
1203 - Vacuum Vessel Final Dsn											102	121	-19
13 Conventional Coils	47	0	3	68	7	17	-61	.10	-10	.41	432	419	13
1301 - Conventional Coils Design	47	0	3	68	7	17	-61	.10	-10	.41	432	419	13
14 Modular Coils	539	247	292	1,583	1,136	1,144	-447	.72	-8	.99	4,353	4,058	295
1401 - Mod. Coil Design (casting&winding)	78	46	24	249	118	121	-131	.47	-3	.98	364	326	38
1402 - Mod.Coil Analyses	53	2	26	151	102	139	-49	.68	-37	.74	201	264	-63
1403 - Mod. Coil Final Design											358	300	58
1404 - Mod. Coil Winding Form R&D	61		7	127	44	105	-83	.35	-60	.42	1,751	1,643	108
1405 - Mod. Coil Winding R&D Prep	85	36	120	422	430	403	8	1.02	27	1.07	530	585	-55
1406 - Mod. Coil Winding R&D	163	94	38	373	235	216	-139	.63	18	1.08	618	720	-102
1407 - Mod. Coil Winding Facility	98	69	77	261	207	160	-54	.79	47	1.29	531	220	311
1408 -Mod. Coil Prototype Coil Winding												0	0
15 1501 - Structures Design	21	0		41	13	18	-28	.32	-5	.71	283	283	0
16 1601 - Coil Services Design	11			23			-23				89	89	0
17 1701 - Cryostat & Base Support Struct Dsn	23			49		1	-49		-1		141	141	0
18 1801 - Field Period Assembly Design	4		3	16		4	-16		-4		93	103	-10
19 1901 - Stellarator Core Management&Integr	65	52	47	228	130	165	-99	.57	-36	.78	547	633	-86
2 - Plasma Heating, Fueling & Vac Systems	29	18	34	110	27	64	-84	.24	-38	.42	288	288	0
2001 - VPS, Gas & Cond sys Design/Oversight	5	8	1	11	8	2	-3	.75	6	3.89	22	22	0
2501 - Neutral Beam Refurbishment	24	10	33	100	19	62	-81	.19	-44	.30	266	266	0
3 - Diagnostics	31	10	18	133	49	99	-84	.37	-50	.50	225	227	-2
39 3901 - Diagnostics systems Integration	31	10	18	133	49	99	-84	.37	-50	.50	225	227	-2
4 - Electrical Power Systems	56	5	6	95	7	7	-88	.07	0	.93	257	256	1
43 4301 - Electrical Dsn DC Systems WBS 432&	30	4	3	51	5	5	-46	.11	1	1.13	125	125	0
44 4401 - Electrical Dsn Control & Protection	4			4			-4				23	23	0
45 4501 - Electr System Design & Integration	7	1	2	25	1	2	-23	.05	-1	.54	66	66	0
46 4601 - FCPC Bldg Modifications	15			15			-15				42	42	0
5 - Central I&C Systems	2			8			-8				24	24	0
58 5801 - Central I&C Integration & Oversight	2			8			-8				24	24	0
6 - Facility Systems	9	6	3	31	19	11	-11	.63	9	1.81	66	66	0
65 6501 - Facility Systems Integration	9	6	3	31	19	11	-11	.63	9	1.81	66	66	0
7 - Test Cell Preparation and Machine Assy	5	5	3	20	20	12	0	1.00	8	1.65	109	80	29
71 7101 - Shield Wall Modifications Design											51	51	0
74 7401 - TC Prep & Mach Assy Plan&Oversight	5	5	3	20	20	12	0	1.00	8	1.65	58	29	30
8 - Project Oversight and Support	147	146	185	821	758	841	-63	.92	-83	.90	1,882	2,054	-171
81 Project Management and Control	64	64	62	321	321	324	0	1.00	-3	.99	800	763	37
8101 - Project Management and Control	47	46	47	231	231	227	0	1.00	5	1.02	579	556	23
8102 - NCSX MIE Management ORNL	8	8	7	46	46	55	0	1.00	-9	.83	109	104	5
8998 - Allocations	9	9	8	44	44	43	0	1.00	2	1.04	111	103	8
82 Project Engineering	54	54	79	355	292	340	-63	.82	-48	.86	732	816	-83
8202 - Engineering Mgmt & Sys Engr Supp	30	23	54	223	188	241	-35	.84	-54	.78	445	579	-134
8203 - Design Integration	14	13	21	67	67	77	0	1.00	-10	.87	168	185	-16
8204 - Systems Analysis	11	18	4	65	37	21	-28	.57	16	1.74	119	52	67
84 Project Physics	28	28	44	145	145	177	0	1.00	-33	.82	350	475	-125
8401 - Project Physcis	20	20	25	100	100	157	0	1.00	-56	.64	251	376	-125
8402 - Project Physics MIE ORNL	8	8	19	44	44	20	0	1.00	24	2.16	99	99	0
Subtotal	1,164	511	651	3,634	2,295	2,533	-1,339	.63	-237	.91	9,912	10,456	-545
Contingency													
Management Reserve											1,635	1,091	545
TOTAL PPPL/ORNL											11,547	11,547	
Funding													
Financial Plan BA											10,828	10,828	
FY02 Carryover											445	445	
Rate Adjustment setaside											274	274	
ERWM Allocation Increment]													
TOTAL PPPL/ORNL FUNDING											11,547	11,547	

Princeton University Plasma Physics Laboratory
 PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

NCSX

**** Fiscal Year 03 only ****

FEBRUARY FY03

	CURRENT PERIOD			CUMULATIVE TO DATE							FY03 Budget Baseline	Forecast	Vari	
	Budgeted Cost			Budgeted Cost			VARIANCES							
	BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI				
ORNL														
Advanced Conceptual Design														
1 - Stellarator Core Systems	219	93	85	711	359	322	-352	.50	37	1.11	1,516	1,299	217	
11 In-Vessel Components	6			8	0		-8	.05	0		18	22	-4	
1101 - Limiter Advanced Concep Design	6			8	0		-8	.05	0		18	22	-4	
1102 - Limiter Prelim & Final Design														
12 Vacuum Vessel Systems	88	20	32	286	115	83	-170	.40	32	1.38	471	307	164	
1201 - Vacuum Vessel Dsn	86	20	32	244	82	83	-162	.33	-2	.98	323	211	112	
1202 - Vacuum Vessel R&D	2	0		42	34		-8	.81	34		61	0	61	
1203 - Vacuum Vessel Final Dsn											87	96	-9	
13 Conventional Coils											13		13	
1301 - Conventional Coils Design											13		13	
14 Modular Coils	86	46	24	285	138	139	-147	.48	-1	.99	689	566	123	
1401 - Mod. Coil Design (casting&winding)	75	46	24	243	118	110	-125	.49	8	1.07	357	315	42	
1402 - Mod. Coil Analyses	9			19			-19				26	0	26	
1403 - Mod. Coil Final Design											248	208	40	
1404 - Mod. Coil Winding Form R&D	2			23	20	29	-3	.86	-9	.69	58	43	15	
1405 - Mod. Coil Winding R&D Prep												0	0	
1406 - Mod. Coil Winding R&D												0	0	
1407 - Mod. Coil Winding Facility												0	0	
1408 - Mod. Coil Prototype Coil Winding												0	0	
15 1501 - Structures Design											13	13	0	
16 1601 - Coil Services Design												0	0	
17 1701 - Cryostat & Base Support Struct Dsn												0	0	
18 1801 - Field Period Assembly Design												0	0	
19 1901 - Stellarator Core Management&Integr	39	28	29	132	105	100	-27	.80	6	1.06	312	391	-79	
2 - Plasma Heating, Fueling & Vac Systems														
2001 - VPS, Gas & Cond sys Design/Oversig														
2501 - Neutral Beam Refurbishment														
3 - Diagnostics														
39 3901 - Diagnostics systems Integration														
4 - Electrical Power Systems														
43 4301 - Electrical Dsn DC Systems WBS 432&														
44 4401 - Electrical Dsn Control & Protection														
45 4501 - Electr System Design & Integration														
46 4601 - FCPC Bldg Modifications														
5 - Central I&C Systems														
58 5801 - Central I&C Integration & Oversight														
6 - Facility Systems														
65 6501 - Facility Systems Integration														
7 - Test Cell Preparation and Machine Assy														
71 7101 - Shield Wall Modifications Design														
74 7401 - TC Prep & Mach Assy Plan&Oversigh														
8 - Project Oversight and Support	17	17	26	90	90	75	0	1.00	14	1.19	208	203	6	
81 Project Management and Control	8	8	7	46	46	55	0	1.00	-9	.83	109	104	5	
8101 - Project Management and Control														
8102 - NCSX MIE Management ORNL	8	8	7	46	46	55	0	1.00	-9	.83	109	104	5	
82 Project Engineering														
8202 - Engineering Mgmt & Sys Engr Suppc														
8203 - Design Integration														
8204 - Systems Analysis														
84 Project Physics	8	8	19	44	44	20	0	1.00	24	2.16	99	99	0	
8401 - Project Physcis														
8402 - Project Physics MIE ORNL	8	8	19	44	44	20	0	1.00	24	2.16	99	99	0	
Subtotal	236	110	111	801	449	397	-353	.56	52	1.13	1,724	1,502	223	
Contingency														
Management Reserve											197	419	-223	
TOTAL ORNL											1,921	1,921		
Funding														
Financial Plan BA											1,921	1,921		
TOTAL ORNL FUNDING											1,921	1,921		

NCSX Cost Analysis

PPPL								
	Funding BA	Budget (incl carryover & rate adj)	Cost Thru Feb	ETC (1)	EAC	Forecast Cost Variances	Proposed Fin Plan Change Request	Action:
MIE Project								
MIE Management Reserve	6,537	5,412	1,439	6,317	6,280			
ACD	2,370	2,775	2,135	540	2,675			
subtotal	8,907	9,626	2,135	6,857	9,626			
Res Prep	546	526	162	250	412	-\$128k Physics		
TOTAL PPPL NCSX	9,453	10,152	2,297	7,107	10,038			

1) Accelerate \$734k Labor Intensive work from FY04 into 03. (This approximates 1 engr, 7 techs, 1 designer) PROPOSAL a) Removal of shield blocks in PBX TC (ACTION: ERIK TO ESTIMATE) b) electrical engr/dsn (ACTION: RAKI/WAYNE TO ITEMIZE AND PRIORITIZE TASKS) c) Spend \$30k for materials and fabricate turning fixtures (\$250k worth of labor!) ACTION: Hutch/Wayne
 2) Evaluate Project Physics charges between res prep and MIE.

(1) Based upon MIE project starting April 1st and all R&D work budgeted under MIE

ORNL								
	Funding BA	Budget (incl carryover & rate adj)	Cost Thru Feb	ETC (1)	EAC	Forecast Cost Variances	Proposed Fin Plan Change Request	Action:
MIE Project								
MIE Management Reserve	1,171	974	197	994	994			
ACD	750	750	397	111	508			
subtotal	1,921	1,921	397	1,105	1,921			
Res Prep	260	260	48	67	115			
TOTAL ORNL NCSX	2,181	2,181	445	1,172	2,036			

-\$164k VV engr/design, -\$123k MCC engr/design, +\$79k WBS 19

(1) Based upon MIE project starting April 1st and all R&D work budgeted under MIE

TOTAL PROJECT								
	Funding BA	Budget (incl carryover & rate adj)	Cost Thru Feb	ETC (1)	EAC	Forecast Cost Variances	Proposed Fin Plan Change Request	Action:
MIE Project								
MIE Management Reserve	7,708	6,386	-	7,311	7,274			
ACD	3,120	3,525	2,532	651	3,183			
subtotal	10,828	11,547	2,532	7,962	11,547			
Res Prep	806	786	210	317	527			
TOTAL ORNL NCSX	11,634	12,333	2,742	8,279	12,074			

NCSX March 1st Cost Performance Analysis

Vacuum Vessel Design and vendor R&D program									
Job 1201 and 1202	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>Sched Vari.</u>	<u>SPI</u>	<u>Cost Vari.</u>	<u>CPI</u>		
Paul Goranson	400	129	148	-271	0.32	-19	0.87		TASKS
VV design & final geometry forecast 5/9, Thermal analysis 4/10, EM & Stress analysis 4/15, scope sheets mid may and design of bolted joint design 5/30. POTENTIAL PDR IMPACT.									L4-041& L4-042, L4-069, L4-064, L4-054 thru 62, L4-043
VV prototype award now forecast for 3/24/03 (approx 2 months late) which could delay receipt of MIT, cost and schedule plans. Delivery of phase I being negotiated to 6 weeks after award which would mean a May 5th delivery.									121-5-16 thru 5-25
Cost Variance driven by PPPL EA engineering.									
Conventional Coils Design									
Job 1301	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>Sched Vari.</u>	<u>SPI</u>	<u>Cost Vari.</u>	<u>CPI</u>		
Mike Kalish	68	7	17	-61	0.10	-10	0.41		
One month delayed start on General arrngts and models.									130-1-01 & 1-2
Modular Coil Design, analyses and vendor R&D program									
Jobs 1401, 1402 and 1404	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>Sched Vari.</u>	<u>SPI</u>	<u>Cost Vari.</u>	<u>CPI</u>		
Dave Williamson	527	264	365	-263	0.50	-101	0.72		
Detailed design, models, specs and ICD's forecast by mid April. EM, struct and thermal analysis end April. MCC R&D Vendor awards 3/14/03 and 3/17 (2 months late). With 10 week lead time vendor delivery of cost/schedule mit plans by 5/27/03.									140-5-4 , 140-5-12, L4-105 thru 140-2-3, 140-4-1 thru 140-4-3
Cost variance driven by PPPL labor in support of MCC procurement efforts and PPPL support of analyses.									142-1-2A & B
Modular coil in-house winding R&D activities									
1406, and 1407	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>Sched Vari.</u>	<u>SPI</u>	<u>Cost Vari.</u>	<u>CPI</u>		
Jim Chrzanowski	634	442	376	-192	0.70	66	1.18		
Determination of materials properties and allowables only 10% complete. Keystoning task late getting started. Selection of epoxy resin system forecast 5/24 (2 1/2 mo. late) and completion of keystoning test forecast for 4/11 (1/2 mo. Late). FDR for autoclave forecast 3/31 (2 mo. Late). Autoclave fabrication defered to FY04. No impact to project schedule.									141-2-1.01, 141-2-3 141-2-1.1 141-3-31
Stellarator Core Structure, Coil Services, Cryostat, and Field Period Assy Design									
Jobs 1501, 1601, 1701, and 1801	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>Sched Vari.</u>	<u>SPI</u>	<u>Cost Vari.</u>	<u>CPI</u>		
Feder, Williamson, Gettlefinger, Chrzaonwski	116	13	23	-103	0.11	-10	0.57		
Updating of conceptual design and advanced conceptual design tasks started late.									various
Stellarator Core Management & Integration									
Job 1901	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>Sched Vari.</u>	<u>SPI</u>	<u>Cost Vari.</u>	<u>CPI</u>		
Brad Nelson	228	130	165	-98	0.57	-35	0.79		
Update stellarator core concept dsn 2 mo. behind. Document time constant & reqmnts for insulating breaks 3 mos. behind. Time constant loop voltage transient field error analysis 1 month behind. Stellarator core asasy dsn criteria 5 mo. Late starting									121-1-01, 193-1-1 thru 193-1-5, 192-2-4
Cost Variance driven by PPPL EA engr labor									
Neutral Beam Refurbishment									
Job 2501	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>Sched Vari.</u>	<u>SPI</u>	<u>Cost Vari.</u>	<u>CPI</u>		
Tim Stevenson	100	19	62	-81	0.19	-43	0.31		
Leak detector procurement on hold under continuing resolution (-33k) no impact; inhouse leak detector to be refurbished. Late start ramping up on all hardware evaluations and testing. (-48k)									250-0025.5 various
Diagnostics									
Job 3901	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>Sched Vari.</u>	<u>SPI</u>	<u>Cost Vari.</u>	<u>CPI</u>		
Dave Johnson	133	49	99	-84	0.37	-50	0.49		
General diagnostic integration, Magnetics integration, SXR Tomography, and Port Orientation issues 1-2 months behind plan. PPPL researcher charges greater that estimated for work performed.									
Electrical systems design and integration									
Jobs 4301 and 4501	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>Sched Vari.</u>	<u>SPI</u>	<u>Cost Vari.</u>	<u>CPI</u>		
Raki Ramakrishnan	95	6	7	-89	0.06	-1	0.86		
A conceptual study was undertaken for power supplies that may be needed for the Trim Coils along with the possible cable routes. Further work is required after finalizing the number of trim coils and their requirements. No other work was performed.									
Project Engineering									
Jobs 8202, 8203, and 8204	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>Sched Vari.</u>	<u>SPI</u>	<u>Cost Vari.</u>	<u>CPI</u>		
Wayne Reiersen	355	292	340	-63	0.82	-48	0.86		
Plans and procedures as well as development of technical data behind by 2 months.									

Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmplt	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04																			
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M														
1 - Stellarator Core Systems																																							
11 - In-Vessel Components																																							
Job: 1101 - Limiter Adv Concep Design-GORANSON																																							
111-2-01	Update Concep Dsn for limiter	28MAR03*	30MAY03	20	432.00	2,160.00	-9																																
L4-035	Incorporate radiation shields in FW panels (if r	06JAN03A	31MAR03	33	0.00	0.00	4																																
L4-036	Calculate bakeout heat loads on VV and in-vessel	06JAN03A	31MAR03	33	0.00	0.00	4																																
L4-037	Update design of initial limiter configuration	15APR03*	21APR03		0.00	0.00	9																																
L4-038	Perform design studies for CFC liner with divert	15APR03*	12MAY03		0.00	0.00	-6																																
L4-039	Perform design studies for flowing Li divertor,	15APR03*	12MAY03		0.00	0.00	-6																																
111-2-1	Interface control documents for invessel compnts	01MAR03A	15MAY03		0.00	7,640.00	1																																
111-3-1	Update cost estimate for Limiter	14MAR03*	15MAY03		0.00	5,400.00	1																																
111-3-2	Update planning for FY-04	12AUG03*	09SEP03		0.00	2,700.00	2,363																																
Subtotal		06JAN03A	09SEP03		432.00	17,900.00	2,363																																
Job: 1102 - Limiter Prelim&Final Design-GORANSON																																							
111-1-1	CAD models and drawings of limiter dsn	03OCT03*	15JAN04		0.00	15,200.00	2,243																																
111-1-2	Thermal analysis of limiters	16JAN04	30JAN04		0.00	3,240.00	2,243																																
111-1-3	Stress analysis of limiters	02FEB04	24FEB04		0.00	3,240.00	2,243																																
111-1-4	Assembly plan for limiters	30JAN04*	15APR04		0.00	3,240.00	2,206																																
111-2-2	Interface control document for diagnostics	31MAY04*	27AUG04		0.00	3,240.00	2,110																																
111-2-3	Interface control document for Utilities	31MAY04*	27AUG04		0.00	8,040.00	2,110																																
111-4-1	Design-to specification	05MAR04*	21APR04		0.00	5,400.00	2,202																																
111-4-2	Draft Build-to (manufacturing) specification for	12AUG04*	09SEP04		0.00	2,700.00	2,101																																
111-4-3	Final Build-to (manufacturing) specification for	12AUG04*	09SEP04		0.00	2,700.00	2,101																																
111-5-1	Demonstrate installation feasibility	05MAR04*	19MAY04		0.00	5,400.00	2,182																																
111-6-1	CAD models and drawings of limiter final design,	03NOV03*	01MAR04		0.00	19,600.00	2,239																																
111-6-2	Final thermal analysis of limiters	01JUN04*	30SEP04		0.00	5,400.00	2,086																																
111-6-3	Final stress analysis of vessel limiters	01JUN04*	30SEP04		0.00	9,210.00	2,086																																
114-1-1	Sensor specification and schematics of sensor pl	03NOV03*	01MAR04		0.00	4,120.00	2,239																																
114-1-2	Interface and cost data input for tasks 111-2, 1	03NOV03*	01MAR04		0.00	2,160.00	2,239																																
Subtotal		03OCT03	30SEP04		0.00	92,890.00	2,086																																

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2/1/03 Status	
3/1/03 Status (forecast)	
Progress Bar	
Critical Activity	

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FY03 Work Authorization Plan

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STATUS THROUGH
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Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl	Earned value (BCWP)	Baseline Budget	Total Float	FY03													FY04				
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
12 - Vacuum Vessel Systems																									
Job: 1201 - Vacuum Vessel Dsn-GORANSON																									
L4-001	Reconstruct conceptual design of stellarator cor	01NOV02A	18DEC02A	100	29,760.00	29,760.00																			
L4-003	Define VV shell and FW geometry	16DEC02A	31MAR03	40	0.00	0.00	-6																		
L4-041	Design of VV	28JAN03A	09MAY03	25	16,117.50	64,470.00	5																		
L4-042	Establish final port geometry	16DEC02A	09MAY03	30	0.00	0.00	0																		
L4-043	Develop design of bolted angled joint	03FEB03A	30MAY03	35	0.00	0.00	-9																		
L4-044	Build geometric mock-up to demo feasibility	17MAR03*	30APR03	-	0.00	0.00	-13																		
L4-045	Establish feasibility of swiping vac seals	17MAR03*	11APR03	-	0.00	0.00	0																		
L4-046	Resolve interference with VV supports	17MAR03*	28MAR03	-	0.00	0.00	0																		
L4-047	Establish envelopes & locations in vsl cmpnts	17FEB03A	31MAR03	10	0.00	0.00	9																		
L4-048	Establish port allocations	01MAY03*	14MAY03	-	0.00	0.00	-13																		
L4-049	Perform FMECA	15MAY03*	21MAY03	-	0.00	0.00	-13																		
L4-050	Establish instrumentation requirements	27JAN03A	15APR03	10	0.00	0.00	2																		
L4-053.5	Prepare performance (design-to) specification fo	09DEC02A	10APR03	20	1,080.00	5,400.00	16																		
L4-052	Evaluate design versus performance reqmnts	22MAY03*	05JUN03	-	0.00	0.00	-13																		
L4-053	Review and promote models/drawings	15MAY03*	29MAY03	-	0.00	0.00	-8																		
L4-071.5	Develop design for VV insulation & attachments	19DEC02A	15APR03	10	3,040.00	30,400.00	23																		
L4-069	Perform thermal analysis of VV	22JAN03A	10APR03	20	4,320.00	21,600.00	26																		
L4-071	Calculate Heat leakage to cold mass	22JAN03A	10APR03	30	0.00	0.00	16																		
L4-064	Perform EM & Stress Analysis of VV	14MAR03*	15APR03	0	0.00	42,014.40	13																		
L4-065	Develop FEA model incl supports	31MAR03*	11APR03	-	0.00	0.00	0																		
L4-066	Calc. buckling FOS & stresses under atmp	14APR03*	18APR03	-	0.00	0.00	0																		
L4-067	Calculate disruption loads	14APR03*	18APR03	-	0.00	0.00	0																		
L4-068	Calculate stresses under combined loads	21APR03*	02MAY03	-	0.00	0.00	0																		
L4-054	Develop Interfaces	02JAN03A	14MAY03	18	17,622.36	97,902.00	2																		
L4-055	Prepare Scope sheet items PFC's (WBS 12/11)	13MAY03*	27MAY03	-	0.00	0.00	-6																		
L4-056	Prepare Scope sheet items (WBS 12/14)	05MAY03*	16MAY03	-	0.00	0.00	0																		
L4-057	Prepare Scope sheet items 12/21-23	15MAY03*	21MAY03	-	0.00	0.00	-3																		
L4-058	Prepare Scope sheet items ICH (WBS12/24)	16JAN03A	14MAY03	10	0.00	0.00	2																		
L4-059	Prepare Scope sheet items NB (WBS 12/25)	20JAN03A	14MAY03	5	0.00	0.00	2																		
L4-060	Prepare Scope sheet items diag (WBS 12/3)	15MAY03*	05JUN03	-	0.00	0.00	-13																		

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STATUS THROUGH
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Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmplt	Earned value (BCWP)	Baseline Budget	Total Float	FY03													FY04								
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M				
L4-061	Prepare Scope sheet item grounding (WBS 12/4)	12MAY03*	16MAY03	-	0.00	0.00	0																						
L4-062	Prepare Scope sheet items I&C (WBS 12/5)	16APR03*	14MAY03	2	0.00	0.00	2																						
L4-062.2	Prepare Scope sheet items (WBS 12/13)	03FEB03A	14MAY03	2	0.00	0.00	2																						
L4-062.4	Prepare Scope sheet items (WBS 12/17)	03FEB03A	14MAY03	2	0.00	0.00	2																						
L4-062.6	Prepare Scope sheet items (WBS 12/18)	03FEB03A	14MAY03	2	0.00	0.00	2																						
L4-063	Prepare Scope sheet VV Htg/Cing (WBS 12/6)	16APR03*	22APR03	-	0.00	0.00	18																						
124-1-1	Support Syst-CAD models,assy dwgs, Interfaces	22JAN03A	03MAR03	20	3,920.00	19,600.00	54																						
124-1-2	Support Syst-Stress analysis	20JAN03A	10MAR03	5	880.24	17,604.80	49																						
124-1-3	Support Syst-Thermal analysis	16DEC02A	17MAR03	25	1,350.00	5,400.00	44																						
125-1-1	Sensor specification,locations,interface w/vv	03MAR03*	31MAR03	0	0.00	6,280.00	34																						
L4-079	Finalize budgetary cost and schedule (WBS 12)	20MAY03*	27MAY03	0	0.00	1,350.00	-6																						
121-4-15	PDR Preparation	02JUN03	07JUL03	0	0.00	10,800.00	-9																						
125-1-PDR	Vacuum Vessel and Modular Coil Prelim Dsn Review		07JUL03*	-	0.00	0.00	-9																						
125-1-ICR	NCSX External Independent Cost Review		15JUL03*	-	0.00	0.00	2,402																						
123-1-1	Schematics and CAD assembly drawing of piping	19DEC02A	31MAR03	15	1,470.00	9,800.00	29																						
123-1-2	Flow analysis	19DEC02A	15APR03	50	5,751.20	11,502.40	18																						
Subtotal		01NOV02A	15JUL03		85,311.30	373,883.60	2,402																						
Job: 1202 - Vacuum Vessel R&D-GORANSON																													
121-5-1	Procurement Oversight and Support	24OCT02A	24MAR03	LOE	31,977.42	38,204.80	2,481																						
121-5-12	Develop and Issue RFP	18NOV02A	18NOV02A	100	0.00	0.00																							
121-5-14	Proposal Prep by subcontractors	19NOV02A	29JAN03A	100	0.00	0.00																							
121-5-16	Evaluate Proposals	03MAR03	17MAR03	90	0.00	0.00	-6																						
121-5-17	Update Documentation (SOW,spec,dwgs)	24MAR03	21MAR03	-	0.00	0.00	-6																						
121-5-18	Finalize Contract	24MAR03	24MAR03	-	0.00	0.00	-6																						
121-5-19	DOE Approval	18MAR03	24MAR03	-	0.00	0.00	-6																						
121-5-2	Update CAD models, drawings and specifications	15NOV02A	17MAR03	90	11,880.00	13,200.00	-1																						
121-5-25	Award 2 VV R&D Contracts		24MAR03	-	0.00	0.00	-6																						
L4-076	Report on mfg methods	25MAR03*	19MAY03	-	0.00	0.00	-1																						
L4-077	Preliminary MIT and QA Plans for VVSA	25MAR03	19MAY03	-	0.00	0.00	-1																						
L4-077.1	Budgetary and cost estimates from R&D Vendors	25MAR03	19MAY03	-	0.00	0.00	-6																						
L4-077.2	MIT and QA plan for PVVS	25MAR03	19MAY03	-	0.00	0.00	77																						
L4-077.3	Release fo Prototype Fabrication		19MAY03	-	0.00	0.00	77																						

Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl't	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04						
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	
L4-78	Vendor design/Fab prototype	20MAY03	31OCT03	-	0.00	0.00	77																			
L4-79	Report on add'l manufacturing activities	08SEP03	31OCT03	-	0.00	0.00	77																			
L4-80	Vendors Prep Final plans & firm fixed price est	23JAN04	20FEB04	-	0.00	0.00	73																			
121-5-3	VV R&D and oversight	25MAR03	28OCT03	LOE	0.00	574,663.50	100																			
Subtotal		24OCT02A	20FEB04		43,857.42	626,068.30	2,245																			
Job: 1203 - Vacuum Vessel Final Dsn-GORANSON																										
121-3-2	Update planning for FY-04	12AUG03*	09SEP03		0.00	2,700.00	2,363																			
121-36-9.2	Release for Fabrication		29OCT04		0.00	0.00	63																			
121-4-3	Build-to (manufacturing) specification for	08JUL03*	04DEC03		0.00	5,400.00	73																			
121-6-1	CAD models and drawings of vessel final design,	08JUL03*	04DEC03		0.00	85,200.00	73																			
121-6-2	Final thermal analysis of vessel assembly	08JUL03*	04DEC03		0.00	11,681.44	73																			
121-6-3	Final stress analysis of vessel assembly	08JUL03*	04DEC03		0.00	17,962.88	73																			
121-6-4	FDR Prep	05DEC03*	01JAN04		0.00	0.00	73																			
121-6-5	FDR		01JAN04		0.00	0.00	73																			
121-6-6	Finalize tech Doc package & Resolve chits	02JAN04	22JAN04		0.00	0.00	73																			
121-6-8	Evaluate and Select VV Production Vendor	23FEB04	05MAR04		0.00	0.00	73																			
121-6-83	Negotiate with vendor	08MAR04	19MAR04		0.00	0.00	73																			
121-6-85	DOE Approve VV Selection & contract	22MAR04	02APR04		0.00	0.00	73																			
121-6-9	Award VV Production Vendor (Phase funded)		02APR04		0.00	0.00	73																			
121-6-9.1	Release for Engr/design/tooling/fixtures		02APR04		0.00	0.00	73																			
Subtotal		08JUL03	29OCT04		0.00	122,944.32	2,065																			
13 - Conventional Coils																										
Job: 1301 - Conventional Coils Design-KALISH																										
130-1-01	Update Conceptual design	01OCT02A	20DEC02A	100	6,102.40	6,102.40																				
130-1-1	Draft of 1) SRD, and 2) SDD Section III - Requir	02DEC02A	28MAR03	10	1,220.48	12,204.80	2,477																			
130-1-2	General arrangement models and drawings	03MAR03*	28MAR03		0.00	48,819.20	2,477																			
130-1-3	Interface control document input for modular coi	03MAR03*	28MAR03		0.00	12,204.80	2,477																			
130-1-4	Interface control document for Conventional Coil	02JUN03*	02SEP03		0.00	36,614.40	2,368																			
130-2-1	PF Coil drawings, models, SDD Sect IV text	28APR03*	09SEP03		0.00	48,819.20	2,363																			
130-2-2	TF Coil drawings, models, SDD Sect IV text	28APR03*	09SEP03		0.00	36,614.40	2,363																			
130-2-3	External Trim Coil drawings, models, SDD Sect IV	28APR03*	09SEP03		0.00	36,614.40	2,363																			
130-2-4	Coils I&C	10JUL03*	09SEP03		0.00	24,409.60	2,363																			

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STATUS THROUGH
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Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04							
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M		
130-3-1	Develop thermal/structural FEA models of cols, i	12MAY03*	23JUN03		0.00	36,614.40	2,417																				
130-3-2	Incorporate EM loads and load cases from global	24JUN03*	30JUN03		0.00	6,102.40	2,412																				
130-3-3	Evaluate stress/deflection due to EM / gravity /	01JUL03*	13AUG03		0.00	36,614.40	2,381																				
130-3-4	Prepare analysis reports, SDD analysis summary,	14AUG03*	11SEP03		0.00	24,409.60	2,361																				
130-4-1	Document fabrication and assembly options for co	02JUN03*	05AUG03		0.00	12,204.80	2,387																				
130-4-2	Prepare cost and schedule estimates WBS 13	03MAR03*	01APR03		0.00	24,409.60	2,475																				
130-4-3	Prepare PDR documentation WBS 13	28AUG03*	30SEP03		0.00	12,204.80	2,348																				
130-4-3.1	Conventional Coils and Structure PDR (WBS 13&15)		30SEP03		0.00	0.00	2,348																				
130-4-4	Prepare FY04 workplans	15AUG03*	12SEP03		0.00	3,661.44	2,360																				
192-1-2-13	Self consistent models/dwgs Conv coil/strct PDR	02JUN03*	10SEP03		0.00	13,220.00	2,362																				
192-2-1-13	Coil geometry tolerance guidance (wbs 13)	03MAR03*	28FEB03		0.00	0.00	2,497																				
192-2-3-13	Eddy current analysis&struct time constant wbs13	03MAR03*	28FEB03		0.00	0.00	2,497																				
Subtotal		01OCT02A	30SEP03		7,322.88	431,844.64	2,348																				

14 - Modular Coils

Job: 1401 - Mod Coil Dsn -WILLIAMSON

140-1-1	Design-to specification (SRD)	22JAN03A	19MAR03	70	8,064.00	11,520.00	32																				
140-5-11	Develop detailed ProE models of winding forms	22JAN03A	28FEB03A	100	33,180.00	33,180.00																					
L4-093	Incorporate features to resolve issue of multipl	22JAN03A	28FEB03A	100	0.00	0.00																					
L4-094	Incorporate final port geometry into shell cutou	22JAN03A	19MAR03	50	0.00	0.00	17																				
L4-098	Develop design of wings, including structural at	22JAN03A	28FEB03A	100	0.00	0.00																					
140-5-12	Develop detailed ProE models winding packs&leads	22JAN03A	19MAR03	50	9,650.00	19,300.00	12																				
L4-097	Develop detailed ProE models clamps&cooling sys	24FEB03A	19MAR03	50	9,650.00	19,300.00	7																				
140-2-1	Develop ICD for conv coils.vessel,structure	24MAR03*	11APR03		0.00	16,496.00	20																				
L4-091.1	Develop assy models,incl bolts,insul,	13MAR03*	19MAR03		0.00	19,300.00	12																				
L4-092	Develop design of insulating, bolted joints at f	13MAR03*	19MAR03		0.00	0.00	12																				
L4-095	Incorporate feature to support the VV	20MAR03*	26MAR03		0.00	0.00	12																				
L4-105	Develop ICD with conventional coils (WBS 12)	24MAR03*	11APR03		0.00	0.00	20																				
L4-096	Incorporate features required for FP and final a	27MAR03*	02APR03		0.00	0.00	27																				
L4-106	Develop ICD with coil structures (WBS 13)	24MAR03*	11APR03		0.00	0.00	20																				
L4-107	Develop ICD with diagnostics (WBS 15)	17MAR03*	21MAR03		0.00	0.00	35																				
140-2-3	Develop ICD with cryo,power, I&C	24MAR03*	11APR03		0.00	13,344.00	20																				
140-5-2	Prepare Preliminary Design Drawings	24MAR03*	18APR03		0.00	43,610.00	20																				

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 3/1/03 Status (forecast)
 Progress Bar
 Critical Activity

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STATUS THROUGH
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Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04																															
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M																										
L4-108	Develop ICD with WBS 4, including grounding and	03MAR03*	14MAR03		0.00	0.00	40																																												
L4-109	Develop ICD with I&C (WBS 5)	24MAR03*	28MAR03		0.00	0.00	30																																												
L4-110	Develop ICD with cryogenic systems (WBS 62)	24MAR03*	11APR03		0.00	0.00	20																																												
140-1-01	Update CDR models and drawings	21OCT02A	20DEC02A	100	43,200.00	43,200.00																																													
140-1-02	Revise ProE conceptual-level models	16DEC02A	19MAR03	90	14,042.16	15,602.40	5																																												
140-5-4	Procure STL models for asm verification	20MAR03*	11APR03		0.00	16,080.00	5																																												
140-1-2	Develop build-to specifications	05MAY03*	16MAY03		0.00	11,520.00	25																																												
140-3-1	Develop cost and schedule estimates	21APR03*	16MAY03		0.00	23,040.00	20																																												
140-5-3	Prepare MCC Design Review Documentation	28MAY03*	09JUL03		0.00	0.00	-11																																												
140-PDR	WBS 14 & 12 pdr		09JUL03*		0.00	0.00	-11																																												
143-1-1	Develop Instrumentation Drawings	14APR03*	18APR03		0.00	10,160.00	20																																												
L4-004	Define geometry of modular coil winding forms	22JAN03A	24FEB03A	100	0.00	0.00																																													
L4-012	Resolve issue of final fit-up of multiple mating	22JAN03A	24FEB03A	100	0.00	0.00																																													
L4-014	Define geometry of SLA model	22JAN03A	19MAR03	50	0.00	0.00	5																																												
L4-015	Order/fabricate model	20MAR03*	11APR03		0.00	0.00	5																																												
L4-100	Prepare FMEA	27MAR03*	23APR03		0.00	0.00	12																																												
L4-102	Evaluate design versus performance requirements	24APR03*	29MAY03		0.00	0.00	12																																												
Subtotal		21OCT02A	09JUL03		117,786.16	295,652.40	-11																																												
Job: 1402 - Mod.Coil Analyses-WILLIAMSON																																																			
140-4-01	Update conceptual design analysis	01OCT02A	13DEC02A	100	85,891.28	85,891.28																																													
140-4-2	Update 2D/3D thermal analysis incl insulation	16DEC02A	12MAR03	90	16,476.48	18,307.20	53																																												
L4-160	Perform cooldown analysis following a pulse	28FEB03A	12MAR03	90	0.00	0.00	58																																												
140-4-1	Develop FE models and perform EM & struc analysis	03MAR03*	30APR03		0.00	12,033.60	23																																												
L4-155	Calculate EM loads, identify critical load cases	24MAR03*	30APR03		0.00	18,307.20	31																																												
L4-156	Update material properties based on R&D results	24MAR03*	30APR03		0.00	11,862.40	31																																												
140-4-3	Perform stress analysis for critical cases	24MAR03*	30APR03		0.00	48,648.00	31																																												
140-4-4	Prepare local models& stress analysis	07APR03*	18APR03		0.00	18,136.00	31																																												
L4-159	Model cooldown from ambient	21APR03*	09MAY03		0.00	18,136.00	16																																												
L4-159.1	Prepare Design Review Documentation f/analyses	12MAY03*	30MAY03		0.00	18,136.00	16																																												
Subtotal		01OCT02A	30MAY03		102,367.76	249,457.68	16																																												
Job: 1403 - Mod. Coil Final Design-WILLIAMSON																																																			
140-1-3	Final Build-to (manufacturing) specification for	08JUL03*	10SEP03		0.00	29,484.80	89																																												

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- 2/1/03 Status
- 3/1/03 Status (forecast)
- Progress Bar
- Critical Activity

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FY03 Work Authorization Plan

STATUS THROUGH
2/28/03

Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl't	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04						
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	
								Gantt Chart (Activity Bars)																		
C-081	Castings-Award Mfg contract (phase funded)	24MAR04			0.00	0.00	40	[Gantt Bar]																		
C-082	Castings-Release f/ engr/tooling&1st 9 castings	24MAR04			0.00	0.00	40	[Gantt Bar]																		
C-083	Castings-Release for last 9 castings	01OCT04*			0.00	0.00	221	[Gantt Bar]																		
Subtotal		01OCT02A	30SEP04		44,264.48	1,661,643.34	2,086	[Gantt Bar]																		
Job: 1405-Mod Coil Winding R&D Prep-CHRZANOWSKI																										
142-9-0	Dev SOW for cladding R&D	29JAN03A	14FEB03A	N/A	0.00	0.00		[Gantt Bar]																		
142-9-1	Internal R&D for cladding	03FEB03A	28FEB03A	100	0.00	0.00		[Gantt Bar]																		
142-9-2	Choose cladding method		28FEB03A	100	0.00	0.00		[Gantt Bar]																		
142-9-3	Update performance spec/dwgs for cladding f/PDR	03MAR03	21MAR03		0.00	0.00	35	[Gantt Bar]																		
141-1-1	Design Prototypes for R&D Activities	01OCT02A	31MAR03	95	73,265.75	77,121.84	2,476	[Gantt Bar] RAFTOPOULOS=80hr ; CHRZANOWSKI =144hr ; PAUL =430hr ;																		
L4-141	Develop process design	02JAN03A	15JAN03A	100	0.00	0.00		[Gantt Bar]																		
L4-142	Peer review process design	15JAN03A	15JAN03A	100	0.00	0.00		[Gantt Bar]																		
141-1-2	Procure supplies/equip. for R&D Trials	28OCT02A	06JUN03	75	59,732.70	79,643.60	2,428	[Gantt Bar] MEIGHAN=120hr ; CHRZANOWSKI =80hr ; MS=42\$K																		
141-1-2.1	Procure copper	02DEC02A	31JAN03A	100	19,800.00	19,800.00		[Gantt Bar] Copper= \$15k																		
141-1-3	Fabricate winding forms/molds for trials	28OCT02A	28APR03	80	277,357.89	353,896.64	178	[Gantt Bar] FOM TECHS TB=1,728hr ; MACHINIST=1,152hr ; RAFTOPOULOS =176hr ; MS=65\$K ;																		
L4-139	Fabricate 1st (straight) winding form at PPPL	18NOV02A	17DEC02A	100	0.00	0.00		[Gantt Bar]																		
L4-140	Place contract for 2nd and 3rd winding forms	18NOV02A	17DEC02A	100	0.00	0.00		[Gantt Bar]																		
L4-146	Fab and Deliver 2nd winding form	18DEC02A	31JAN03A	100	0.00	0.00		[Gantt Bar]																		
L4-149.1	Fab & Deliver 3rd winding form	03JAN03A	31JAN03A	100	0.00	0.00		[Gantt Bar]																		
L4-152	Fab and deliver 4th winding form (oval)	03MAR03	14APR03		0.00	0.00	188	[Gantt Bar]																		
L4-300	Place contract for Oval Tee Mold (5th)	03FEB03A	27FEB03A	100	0.00	0.00		[Gantt Bar]																		
L4-302	Fab & Deliver Oval Tee Mold (5th)	03MAR03*	04APR03		0.00	0.00	2,472	[Gantt Bar]																		
L4-304	Place Contract for Tee Return Molds (6th)	01OCT03*	14OCT03		0.00	0.00	2,320	[Gantt Bar]																		
L4-306	Fab & Deliver Return Molds (6th)	15OCT03	07NOV03		0.00	0.00	2,320	[Gantt Bar]																		
Subtotal		01OCT02A	07NOV03		430,156.34	530,462.08	2,320	[Gantt Bar]																		
Job: 1406 - Mod. Coil Winding R&D-CHRZANOWSKI																										
141-2-1	Develop VPI mold & impregnation techniques	01OCT02A	31MAR03	80	126,182.86	157,728.57	189	[Gantt Bar] KEARNS=496hr ; MACHINIST=863hr ; MEIGHAN=200hr ; CHRZANOWSKI =100hr ;																		
L4-129	Prepare TFTR basement for winding R&D, set up eq	04NOV02A	27NOV02A		0.00	0.00		[Gantt Bar]																		
L4-130	Select epoxy resin	02DEC02A	20DEC02A		0.00	0.00		[Gantt Bar]																		
L4-131	Prepare NEPA and WP to cover winding development	02DEC02A	20DEC02A		0.00	0.00		[Gantt Bar]																		
L4-132	Develop VPI procedure for impregnating molded co	19NOV02A	31MAR03	80	0.00	0.00	124	[Gantt Bar]																		

Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl't	Earned value (BCWP)	Baseline Budget	Total Float	FY03													FY04												
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M								
L4-133	Prep single conductor molds and test samples	02DEC02A	17DEC02A		0.00	0.00																											
L4-134	VPI single conductor test samples	18DEC02A	20DEC02A		0.00	0.00																											
141-2-1.01	Determine material properties and allowables	02DEC02A	17APR03	10	3,760.96	90,409.60	176																										
141-1-3.1	Fabricate Tensile Test Specimens		17APR03		0.00	0.00	2,463																										
L4-119	Establish test rqmts	16DEC02A	20DEC02A		0.00	0.00																											
L4-121	Peer review test plans and specimens	02JAN03A	15JAN03A	100	0.00	0.00																											
L4-124	Place contracts for outside testing	03FEB03A	31MAR03	50	0.00	0.00	150																										
L4-122	Fabricate molds for test specimens	03MAR03*	05MAY03		0.00	0.00	2,451																										
L4-123	Fabricate test specimens	03MAR03*	05MAR03		0.00	0.00	2,494																										
L4-125	Perform tests on test specimens, estab properties	01APR03*	05MAY03		0.00	0.00	150																										
L4-126	Review results of test program	06MAY03*	09MAY03		0.00	0.00	150																										
L4-127	Update design criteria	12MAY03*	23MAY03		0.00	0.00	150																										
141-2-1.1	Select Epoxy Resin System		23MAY03*		0.00	0.00	2,387																										
141-2-3	Perform conductor Keystone tests	24MAR03*	14APR03		0.00	98,277.12	179																										
L4-113	Design winding form	02DEC02A	16DEC02A		0.00	0.00																											
L4-114	Peer review plans for keystoning	17DEC02A	20MAR03		0.00	0.00	180																										
L4-116	Tape and wind conductor on winding form, measure	21MAR03	10APR03		0.00	0.00	180																										
L4-117	Review results of keystoning test	11APR03	11APR03		0.00	0.00	180																										
141-2-3.1	Keystone tests complete		14APR03		0.00	0.00	179																										
141-2-2	Receive, inspect and VPI test coil wound at UT	28OCT02A	20DEC02A	100	33,875.80	33,875.80																											
141-2-2.1	VPI of test Coil from UT		20DEC02A		0.00	0.00																											
141-2-4	Perform VPI and winding testing	03FEB03A	01JUL03	30	59,475.22	198,250.72	124																										
141-2-4.1	Prelim VPI Process for Mod Coils		30JUN03		0.00	0.00	2,412																										
L4-143	Wind conductor on 1st winding form	03FEB03A	28FEB03A	100	0.00	0.00																											
L4-144	Apply mold and VPI 1st winding	03FEB03A	28FEB03A	100	0.00	0.00																											
L4-145	Inspect and test 1st windings	03FEB03A	28FEB03A	100	0.00	0.00																											
L4-146.1	Prep & Wind conductor 2nd (twisted) winding form	19MAY03	09JUN03		0.00	0.00	2,387																										
L4-147	Apply mold and VPI 2nd winding	10JUN03	23JUN03		0.00	0.00	2,387																										
L4-148	Inspect and test 2nd winding	24JUN03	30JUN03		0.00	0.00	2,387																										
L4-149.2	Prep & Wind conductor 3rd (twisted) winding form	03MAR03*	28MAR03		0.00	0.00	189																										

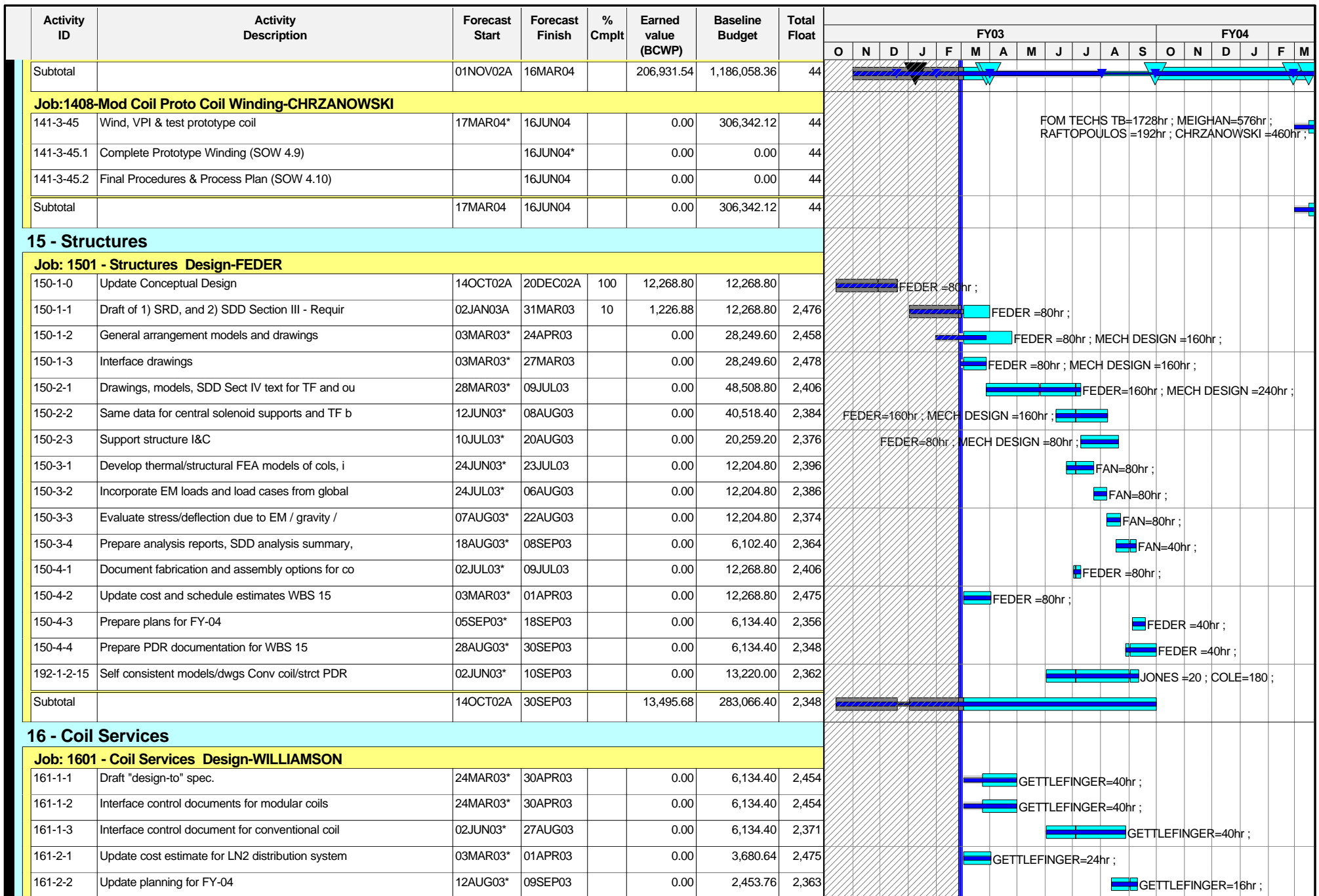
Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl	Earned value (BCWP)	Baseline Budget	Total Float	FY03													FY04						
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M		
								Gantt Chart Area																			
L4-150	Apply mold and VPI 3rd winding	31MAR03*	11APR03		0.00	0.00	189																				
L4-151	Inspect and test 3rd winding	14APR03	25APR03		0.00	0.00	189																				
L4-177	Prep & Wind conductor 4th (vertical) winding form	01OCT03*	14OCT03		0.00	0.00	70																				
L4-178	Apply mold and VPI 4th winding	15OCT03*	04NOV03		0.00	0.00	70																				
L4-179	Inspect and test 4th winding	05NOV03	18NOV03		0.00	0.00	70																				
141-2-5	Develop winding and VPI procedures for prototype	02JUL03*	03SEP03		0.00	15,256.00	124																				
141-2-5.1	Final VPI Process for Mod Coils		18NOV03*		0.00	0.00	70																				
L4-115	Fab winding form (outside vendor)	03MAR03*	07APR03		0.00	0.00	2,471																				
141-QPS-1	Wind 2nd Test Coil @ PPPL *deleted*	28FEB03A	28FEB03A	DEL	7,056.48	7,056.48																					
141-QPS-2	VPI 2nd Test Coil *deleted*	28FEB03A	28FEB03A	DEL	4,301.52	4,301.52																					
141-QPS-3	Wind (4) conductor Coil	03MAR03*	10MAR03	TBD	0.00	8,276.96	2,486																				
141-QPS-4	VPI (4) Conductor Coil	11MAR03*	17MAR03	TBD	0.00	4,301.52	2,486																				
Subtotal		01OCT02A	18NOV03		234,652.84	617,734.29	2,313																				
Job: 1407 -Mod Coil Winding Facility-CHRZANOWSKI																											
141-3-1	Design Tooling and Winding Facility	01NOV02A	27MAR03	75	206,931.54	275,908.72	294																				
L4-170	Develop facility requirements and design	09DEC02A	27MAR03	30	0.00	0.00	294																				
L4-171	Complete product specification and fab drawings	09DEC02A	27MAR03	30	0.00	0.00	294																				
141-3-1.4	Complete Design of Tooling and autoclav(SOW 4.8)		27MAR03		0.00	0.00	294																				
141-3-1.1	Design Autoclave	02NOV02A	31MAR03	90	0.00	0.00	172																				
141-3-1.2	PDR Autoclave		08JAN03A	100	0.00	0.00																					
141-3-1.3	FINAL design Autoclave		31MAR03*		0.00	0.00	172																				
141-3-3	Fabricate Autoclave	01OCT03*	16MAR04		0.00	261,874.54	44																				
L4-173	Procure components for autoclave	01OCT03	23DEC03		0.00	0.00	44																				
L4-174	Fabricate and install autoclave	24DEC03	16MAR04		0.00	0.00	44																				
141-3-3.1	Fabricate Autoclave		16MAR04		0.00	0.00	44																				
141-3-35.1	FDR Winding Facility and Tooling		29SEP03*		0.00	0.00	57																				
141-3-35	Fabricate remainder of winding facility	01OCT03*	27FEB04		0.00	632,927.58	56																				
141-3-2	Upgrade tooling drawings as required	31DEC03	27FEB04		0.00	15,347.52	56																				
141-3-35.2	Fabricate Remainder of winding facility complete		27FEB04*		0.00	0.00	56																				

Run Date 19MAR03 10:23

- 2/1/03 Status
- 3/1/03 Status (forecast)
- Progress Bar
- Critical Activity

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FY03 Work Authorization Plan

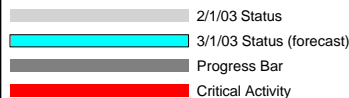
STATUS THROUGH
 2/28/03



Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04						
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	
								Gantt Chart (Activity bars with resource assignments like KALISH=60hr, NEUMEYER=80hr, GETTLEFINGER=80hr, etc.)																		
162-1-1	Interface control documents for modular coils	03MAR03*	30APR03		0.00	9,153.60	2,454	KALISH=60hr ;																		
162-1-2	Interface control document for conventional coil	02JUN03*	27AUG03		0.00	9,153.60	2,371	KALISH=60hr ;																		
162-2-1	Update cost estimate coil electrical leadsWBS162	03MAR03*	01APR03		0.00	3,661.44	2,475	KALISH=24hr ;																		
162-2-2	Update planning for FY-04	12AUG03*	09SEP03		0.00	2,440.96	2,363	KALISH=16hr ;																		
163-1-1	Design-to specification **N/R**	03MAR03	28FEB03		0.00	0.00	2,497																			
163-1-2	Coil protection system architecture and sys resp	03MAR03*	31MAR03		0.00	11,445.60	2,413	NEUMEYER=80hr ;																		
163-1-3	Define Interfaces	01APR03*	28APR03		0.00	11,445.60	2,413	NEUMEYER=80hr ;																		
163-2-1	Interface control documents for modular coils	29APR03*	27JUN03		0.00	5,722.80	2,413	NEUMEYER=40hr ;																		
163-2-2	Interface control document for conventional coil	02JUN03*	27AUG03		0.00	5,722.80	2,371	NEUMEYER=40hr ;																		
163-3-1	Update cost estimate coil protection systWBS 163	03MAR03*	01APR03		0.00	3,433.68	2,475	NEUMEYER=24hr ;																		
163-3-2	Update planning for FY-04	12AUG03*	09SEP03		0.00	2,289.12	2,363	NEUMEYER=16hr ;																		
Subtotal		03MAR03	09SEP03		0.00	89,006.80	2,363																			
17 - Cryostat and Base Support Structure																										
Job:1701-Cryostat&Base Sprt Strct Dsn-GETTLEFINGER																										
171-1-0	Update Conceptual design	03MAR03*	19MAR03		0.00	12,268.80	2,484	GETTLEFINGER=80hr ;																		
171-1-1	Cryostat interface with VV and Mod coils	03MAR03*	11APR03		0.00	12,268.80	2,467	GETTLEFINGER=80hr ;																		
171-1-2	Cryostat interface with conv coils & structure	02JUN03*	27AUG03		0.00	12,268.80	2,348	GETTLEFINGER=80hr ;																		
171-2-1	Cryostatst-update cost estimat	03MAR03*	01APR03		0.00	3,680.64	2,475	GETTLEFINGER=24hr ;																		
171-2-2	Cryostat-update planning for FY-04	12AUG03*	09SEP03		0.00	2,453.76	2,363	GETTLEFINGER=16hr ;																		
172-1-1	Base structure Design CAD models/dwgs	03MAR03*	27MAY03		0.00	40,518.40	2,436	GETTLEFINGER=160hr ; MECH DESIGN =160hr ;																		
172-1-2	Base Struct Design analysis reports	03JUN03*	27AUG03		0.00	24,537.60	2,371	GETTLEFINGER=160hr ;																		
172-2-1	Base Struct interface with VV and Mod coils	03MAR03*	30APR03		0.00	13,196.80	2,454	GETTLEFINGER=60hr ; MECH DESIGN =40hr ;																		
172-2-2	Base Struct interface with conv coils and struc	02JUN03*	27AUG03		0.00	13,196.80	2,348	GETTLEFINGER=60hr ; MECH DES																		
172-3-1	Base Struct- update cost estimate	03MAR03*	01APR03		0.00	3,680.64	2,475	GETTLEFINGER=24hr ;																		
172-3-2	Base Struct-Update planning for FY-04	12AUG03*	09SEP03		0.00	2,453.76	2,363	GETTLEFINGER=16hr ;																		
Subtotal		03MAR03	09SEP03		0.00	140,524.80	2,363																			
18 - Field Period Assembly																										
Job: 1801 - Field Period Assly Dsn-CHRZANOWSKI																										
185-1-1	Revised conceptual plan for field period assembl	03MAR03*	28MAR03		0.00	16,200.00	0	CHRZANOWSKI =80hr ; MECH DESIGN =40hr ;																		
L4-016	Develop concept of tooling and assembly features	01APR03*	21APR03		0.00	0.00	-1	Critical Activity																		
L4-017	Document procedure for FP assembly, conduct revi	22APR03*	12MAY03		0.00	0.00	-1	Critical Activity																		
L4-018	Develop concept of tooling and assembly features	31MAR03*	18APR03		0.00	0.00	15	Critical Activity																		

Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl't	Earned value (BCWP)	Baseline Budget	Total Float	FY03													FY04				
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
								Gantt chart area with activity bars and resource assignments																	
L4-019	Document procedure for final assembly, conduct r	14APR03*	02MAY03		0.00	0.00	5	Gantt bar for L4-019																	
185-1-2	Layouts and preliminary tooling models and draw	02JUN03*	24SEP03		0.00	34,897.00	2,352	Gantt bar for 185-1-2													CHRZANOWSKI =160hr ; MEC				
185-2-1	Interface control documents for vacuum vessel an	03MAR03*	28APR03		0.00	16,200.00	2,456	Gantt bar for 185-2-1													CHRZANOWSKI =80hr ; MECH DESIGN =40hr ;				
185-2-2	Interface control document for conventional coil	30MAY03*	25AUG03		0.00	16,200.00	2,373	Gantt bar for 185-2-2													CHRZANOWSKI =80hr ; MECH DES				
185-3-1	Update cost estimate field period assmby WBS 18	03MAR03*	01APR03		0.00	6,102.40	2,475	Gantt bar for 185-3-1													CHRZANOWSKI =40hr ;				
185-3-2	Update planning for FY-04	12AUG03*	09SEP03		0.00	3,051.20	2,363	Gantt bar for 185-3-2													CHRZANOWSKI =20hr ;				
Subtotal		03MAR03	24SEP03		0.00	92,650.60	2,352	Gantt bar for Subtotal																	
19 - Stellarator Core Management and Integration																									
Job: 1901 - Stellarator Core Mngt&Integr-NELSON																									
0191-1-5	LOE-Day to day telecons, meetings,Design and R&D	01OCT02A	30SEP03	LOE	36,644.16	91,840.00	2,348	Gantt bar for 0191-1-5													NELSON=560 ;				
0192-1-3	LOE-Day to day coordin of Pro-E & Pro-Intrali	01OCT02A	30SEP03	LOE	22,982.40	57,600.00	2,348	Gantt bar for 0192-1-3													COLE=400 ;				
121-1-01	Update Conceptual Design of Stellarator Core	01OCT02A	21MAR03	85	16,728.00	19,680.00	-6	Gantt bar for 121-1-01													NELSON=120hrs				
191-1-1	Modular Coil / VV dsn review and documentation	05FEB03A	02MAY03	5	1,312.00	26,240.00	2,452	Gantt bar for 191-1-1													NELSON=160 ;				
191-1-2	CD 2 cost and schedule update for WBS 1	05FEB03A	01APR03	5	984.00	19,680.00	2,475	Gantt bar for 191-1-2													NELSON=120 ;				
191-1-3	FY04 work plans	14AUG03*	04SEP03		0.00	6,560.00	2,366	Gantt bar for 191-1-3													NELSON=40 ;				
191-1-4	Conventional Coils / support structure dsn rww	05MAY03*	30SEP03		0.00	19,680.00	2,348	Gantt bar for 191-1-4													NELSON=120 ;				
192-1-2	Self consistent models/dwgs Conv coil/strct PDR	02JUN03*	10SEP03		0.00	26,440.00	2,362	Gantt bar for 192-1-2													JONES =40 ; COLE=160 ;				
192-1-4	Prepare Stellarator Core Assembly dwgs &assy seq	01NOV02A	15APR03	60	26,654.40	44,424.00	2,465	Gantt bar for 192-1-4													JONES =360 ; COLE=96 ;				
192-2-2	Material permeability limits vs location	31MAR03*	15APR03		0.00	0.00	2,465	Gantt bar for 192-2-2																	
192-2-4	Prepare stellarator core assembly dsn criteria	31MAR03*	15MAY03		0.00	35,088.80	2,443	Gantt bar for 192-2-4													ZATZ=230				
L4-022	Define preliminary S1, S2, and S3 states	01APR03*	31MAR03		0.00	0.00	2,476	Gantt bar for L4-022																	
L4-023	Confirm final S1, S2, and S3 states	21MAR03*	14APR03		0.00	0.00	2,466	Gantt bar for L4-023																	
L4-024	Perform flexibility studies	31MAR03*	14APR03		0.00	0.00	2,466	Gantt bar for L4-024																	
L4-025	Perform initial divertor (edge modeling) studies	01APR03*	14APR03		0.00	0.00	-6	Gantt bar for L4-025																	
192-2-5A	continuing analysis/final rpts f/mod coil FY 03	01APR03*	30SEP03		0.00	19,527.68	2,348	Gantt bar for 192-2-5A													ZATZ=160				
193-1-1	Doc time cnstnt/rqmnts f/ insul breaks vv/mc	28FEB03A	30APR03	50	6,102.40	12,204.80	2,454	Gantt bar for 193-1-1													Document in an analysis report the results of (previously calculated) time constant assessments and requirements for insulating breaks for the vacuum vessel and modular coils BROOKS =80				
193-1-2	Doc time cnstnt/rqmnts insul breaks struct/solen	28FEB03A	15MAY03	50	9,153.60	18,307.20	2,443	Gantt bar for 193-1-2													Assess time constants and recommend requirements for insulating breaks in the coils support structure and central solenoid assembly document in an analysis report BROOKS =120				
L4-029	Assess time constants and derived rqmts in struc	15APR03*	01MAY03		0.00	0.00	2,388	Gantt bar for L4-029																	

Run Date 19MAR03 10:23



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FY03 Work Authorization Plan

STATUS THROUGH
2/28/03

Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04						
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	
193-1-3	Time cnstnt,loop voltage, transient filed errors	28FEB03A	15MAY03	50	9,153.60	18,307.20	2,443	Assess the time constants, loop voltage penetration, and transient field errors with a coupled model of the VV, modular coils, coil support structure, and CS assembly. Document in an analysis report BROOKS =120																		
L4-028	Document time constants and derived rqmts for MC	03MAR03*	14MAR03		0.00	0.00	2,409																			
L4-030	Assess time constants and field errors in couple	02MAY03*	15MAY03		0.00	0.00	2,388																			
L4-032	Assess potential sources of field errors in TC	02JUN03*	27JUN03		0.00	0.00	2,388																			
193-1-4	Doc. tolerance studies for mod,TF,&PF coils	14APR03*	01MAY03		0.00	18,307.20	2,453	Document tolerance studies (previously calculated) for modular, TF, and PF coils and recommend requirements in an analysis report BROOKS =120																		
L4-031	Document tolerance studies and derived rqmts	16MAY03*	30MAY03		0.00	0.00	2,388																			
193-1-5	Doc. VV disruption loads	15APR03*	01MAY03		0.00	6,102.40	2,453	Document (previously calculated) VV disruption loads in an analysis report BROOKS =40																		
193-1-6	EM analysis in final design	01APR03*	30SEP03		0.00	106,792.00	2,348	BROOKS =700																		
L4-182	Update the ICH (WBS 24) conceptual design for an	14FEB03A	15APR03	2	0.00	0.00	2,440																			
Subtotal		01OCT02A	30SEP03		129,714.56	546,781.28	2,348																			

2 - Plasma Heating, Fueling & Vac Systems

21 - Fueling Systems

Job: 2001-VPS, Gas & Cond Sys Oversight-BLANCHARD

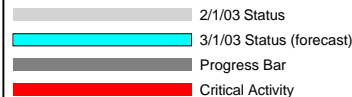
Activity ID	Description	Forecast Start	Forecast Finish	% Cmpl	Earned Value	Baseline Budget	Total Float
211-0001	CDR Chits and C&S updates	03MAR03*	31MAR03		0.00	6,134.40	2,476
211-0002	Equipment checkout	31JAN03A	31MAR03	LOE	7,999.20	15,998.40	2,476
Subtotal		31JAN03A	31MAR03		7,999.20	22,132.80	2,476

25 - Neutral Beam Injection System

Job: 2501 - Neutral Beam Refurbishment-STEVENSON

Activity ID	Description	Forecast Start	Forecast Finish	% Cmpl	Earned Value	Baseline Budget	Total Float
L4-188	Update cost and schedule estimates	12MAR03*	11APR03		0.00	0.00	2,442
250-0001	Design & work planning	02DEC02A	30SEP03	10	2,185.67	21,856.72	2,348
250-0003	Systems Engineering & Interfaces	02DEC02A	30SEP03	10	1,373.47	13,734.72	2,348
250-0005	Design Layout and Routing	02DEC02A	30SEP03	10	1,142.06	11,420.64	2,348
250-0006	Procedures	28OCT02A	30SEP03	10	815.76	8,157.60	2,348
250-0007	Power Supply Eval-Pole Xfmr AC Power Test	02JAN03A	31MAR03	25	3,433.68	13,734.72	2,476
250-0007.1	AC power equipt Insp, test,maint R367433	03MAR03*	31MAR03	25	0.00	0.00	2,476
250-0009	Power Supply Eval-Clean Accel Rectifier	02DEC02A	30APR03	2	141.47	7,073.74	2,383
250-0011	Power Supply Eval-Hipot Accel Rectifier	01MAY03	19JUN03		0.00	7,073.74	2,383

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Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl't	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04						
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	
								Gantt chart showing activity progress and resource allocation (e.g., CARSON=32hr, NBI TECH=53hr, ROSSI=40hr, GIBILISCO=24hr, etc.)																		
250-0013	Power Supply Eval-Local Test Accel Rectifier	20JUN03	11AUG03		0.00	7,073.74	2,383	CARSON=32hr ; NBI TECH=53hr ;																		
250-0015	Power Supply Eval-Evaluate Phase Controller	02JAN03A	16SEP03	10	407.88	4,078.80	2,358	ROSSI=40hr ;																		
250-0017	Power Supply Eval-Modulator Restoration	21OCT02A	30MAY03	10	532.33	5,323.28	2,433	GIBILISCO=24hr ; NBI TECH=40hr ;																		
250-0019	Power Supply Eval-Fault Detector Evaluation	02DEC02A	28MAR03	50	2,661.64	5,323.28	2,353	GIBILISCO=24hr ; NBI TECH=40hr ;																		
250-0021	Power Supply Eval-Crowbar Test	31MAR03	09MAY03		0.00	5,323.28	2,353	GIBILISCO=24hr ; NBI TECH=40hr ;																		
250-0023	Power Supply Eval-Relocate DL to Mod Area	12MAY03	23JUN03		0.00	5,323.28	2,353	GIBILISCO=24hr ; NBI TECH=40hr ;																		
250-0025	Power Supply Eval-Accel System Test	24JUN03	23SEP03		0.00	44,134.40	2,353	CARSON=160hr ; GIBILISCO=160hr ;																		
250-0025.5	Repair existing leak detector	03MAR03*	28MAR03		0.00	0.00	2,477																			
250-0026	Purchase Leak Detector **on hold pending CR**	01AUG03*	26SEP03		0.00	33,000.00	2,350	MS=25\$k ;																		
250-0027	Beamline #1 Evaluations-Vacuum Test	02JAN03A	30APR03	25	2,279.49	9,117.90	2,454	CARSON=30hr ; GIBILISCO=30hr ; YAGER=30hr ;																		
250-0029	Beamline #2 Evaluations-Vacuum Test	02JAN03A	30APR03	25	2,279.49	9,117.90	2,454	CARSON=30hr ; GIBILISCO=30hr ; YAGER=30hr ;																		
250-0031	Beamline #3 Evaluations-Vacuum Test	02JAN03A	30SEP03	5	455.91	9,117.90	2,348	CARSON=30hr ; GIBILISCO=30hr ; YAGER=30hr ;																		
250-0033	Beamline #4 Evaluations-Vacuum Test	02JAN03A	30SEP03	5	455.91	9,117.90	2,348	CARSON=30hr ; GIBILISCO=30hr ; YAGER=30hr ;																		
250-0035	Beamline #1 Evaluations-Cryo Pump Test	24FEB03A	30MAY03	2	182.35	9,117.90	2,433	CARSON=30hr ; GIBILISCO=30hr ; YAGER=30hr ;																		
250-0037	Beamline #2 Evaluations-Cryo Pump Test	24FEB03A	30MAY03	2	182.35	9,117.90	2,433	CARSON=30hr ; GIBILISCO=30hr ; YAGER=30hr ;																		
250-0039	Beamline #3 Evaluations-Cryo Pump Test	24FEB03A	30SEP03	2	182.35	9,117.90	2,348	CARSON=30hr ; GIBILISCO=30hr ; YAGER=30hr ;																		
250-0041	Beamline #4 Evaluations-Cryo Pump Test	24FEB03A	29SEP03	2	182.35	9,117.90	2,349	CARSON=30hr ; GIBILISCO=30hr ; YAGER=30hr ;																		
Subtotal		21OCT02A	30SEP03		18,894.16	265,575.14	2,348																			

3 - Diagnostics

39 - Diagnostics Integration

Job: 3901 - Diagnostics sys Integration-JOHNSON

390-1	DIAGNOSTIC INTEGRATION	01JAN03A	01SEP03		0.00	0.00	2,369																			
390-101	refine measurement requirements	01JAN03A	31MAR03	20	2,002.96	10,014.88	2,479	JOHNSON =16hr ; STRATTON =16hr ; TAKAHASHI =16hr ; FREDRICKSON =16hr ;																		
390-102	refine diagnostics/research plan	01JAN03A	01SEP03	20	1,102.36	5,511.84	2,369	JOHNSON =16hr ; STRATTON =16hr ;																		
390-103	prepare physics meetings presentations	03MAR03*	31MAR03		0.00	4,075.40	2,479	JOHNSON =16hr ;																		
390-104	prepare VV CDR material	01APR03*	30APR03		0.00	5,511.84	2,457	JOHNSON =16hr ; STRATTON =16hr ;																		
390-105	review and modify WBS3 cost estimates	24FEB03A	11APR03	10	163.02	1,630.16	2,470	JOHNSON =08hr ;																		
390-2	PORT ORIENTATION/ALLOCATION ISSUES	01OCT02A	30APR03		0.00	0.00	2,457																			
390-201	prioritize diagnostics for access	01OCT02A	31OCT02A	100	2,755.92	2,755.92		JOHNSON =08hr ; STRATTON =08hr ;																		
390-202	prep drawings package for specialist meetings	01OCT02A	31OCT02A	100	4,083.92	4,083.92		JOHNSON =08hr ; FEDER =16hr ;																		

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FY03 Work Authorization Plan

STATUS THROUGH
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Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl't	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04				
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
390-203	layouts of diagnostic sightlines	28OCT02A	14MAR03	70	19,291.44	27,559.20	2,490	JOHNSON =80hr ; STRATTON =80hr ;																
390-204	attend/follow-up wkly meetings on sightlines	02DEC02A	31MAR03	40	15,931.20	39,828.00	2,479	JOHNSON =80hr ; STRATTON =80hr ; FEDER =80hr ;																
390-205	explore cryostat implications	02DEC02A	31MAR03	20	1,142.81	5,714.08	2,479	JOHNSON =16hr ; FEDER =16hr ;																
390-206	provide port orientation info f/VV design	03MAR03*	30APR03		0.00	23,292.48	2,457	JOHNSON =32hr ; STRATTON =32hr ; FEDER =80hr ;																
390-3	SXR TOMOGRAPHY INTEGRATION INTO VV	03MAR03	31MAR03		0.00	0.00	2,479																	
390-301	investigate integration with modified VV wedge	03MAR03*	31MAR03		0.00	5,712.26	2,479	JOHNSON =16hr ; STRATTON =16hr ; FEDER =16hr ;																
390-302	invest feasibility of AXUV diode array approach	03JAN03A	31MAR03	10	225.15	2,251.52	2,479	STRATTON =16hr ;																
390-303	invest feasibility scintillator/fiber optics	03JAN03A	31MAR03	10	225.15	2,251.52	2,479	STRATTON =16hr ;																
390-304	prepare and present physics meeting presentation	03MAR03*	28MAR03		0.00	2,352.64	2,480	STRATTON =08hr ; FEDER =08hr ;																
390-305	provide input to VV CDR	03MAR03*	31MAR03		0.00	1,125.76	2,479	JSTRATTON =08hr ;																
390-4	MAGNETIC DIAGNOSTICS	02DEC02A	04JUN03		0.00	0.00	2,432																	
390-401	define measurement reqts for slow magnetics	03MAR03*	03APR03		0.00	8,772.16	2,432	JOHNSON =32hr ; TAKAHASHI =16hr ;																
390-402	invest space envelopes magn sensors inside vsl	02DEC02A	31MAR03	10	652.06	6,520.64	2,479	TAKAHASHI =32hr ;																
390-403	consider altern locations electr vac feedthrus	04APR03	04JUN03		0.00	4,503.04	2,432	TAKAHASHI =32hr ;																
390-404	invest space envel for magn sensors outside vsl	24FEB03A	01MAY03	20	900.61	4,503.04	2,456	TAKAHASHI =32hr ;																
390-405	enrg mtg present space envel/mounting concepts	03MAR03*	28MAR03		0.00	2,251.52	2,480	TAKAHASHI =16hr ;																
390-406	document space envelope for slow magnetics	03MAR03*	28MAR03		0.00	2,251.52	2,480	TAKAHASHI =16hr ;																
390-407	define high freq. Mirnov coil requirements	03JAN03A	28MAR03	20	225.15	1,125.76	2,480	FREDRICKSON =08hr ;																
390-408	conc dsn space envel high freq Mirnov coils	03JAN03A	31MAR03	20	450.30	2,251.52	2,479	FREDRICKSON =16hr ;																
390-5	E-BEAM CONCEPT EXPLORATION	01MAY03	30JUL03		0.00	0.00	2,392																	
390-501	define space and time resolution requirements	01MAY03*	30JUN03		0.00	8,889.12	2,414	JOHNSON =16hr ; TAKAHASHI =40hr																
390-502	define vacuum scenarios to be probed	01MAY03*	30JUN03		0.00	5,628.80	2,414	TAKAHASHI =40hr ;																
390-503	prep physics mtg presenta reqnts, scenarios	01JUL03*	30JUL03		0.00	3,377.28	2,392	TAKAHASHI =24hr ;																
390-504	continue concept exploration detecting e-beam	01MAY03*	30JUN03		0.00	14,115.84	2,414	TAKAHASHI =48hr ; FEDER =48hr ;																
390-601	Investig Diagn Issues w/other stellartor groups	01MAY03*	30JUL03		0.00	16,148.08	2,392	JOHNSON =24hr ; STRATTON =48hr ; TAKAHASHI =40hr ;																
Subtotal		01OCT02A	01SEP03		49,152.05	224,009.74	2,369																	

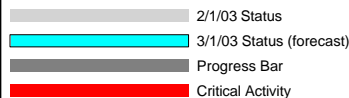
4 - Electrical Power Systems

43 - DC Systems

Job: 4301 - ElectrDsn DC SystemsWBS 432&433-RAKI

432-0001	D to C Site DC Cabling -Design & Requisitions	30JAN03A	07APR03		5,489.40	35,416.80	2,391	RAKI=80hr ; BISESTI=120hr ; VANKIRK=120hr ;																
432-0002	D to C Site DC Cabling -Design Review	08APR03	15MAY03		0.00	11,424.08	2,391	RAKI=24hr ; BISESTI=40hr ; VANKIRK=40hr ;																

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STATUS THROUGH
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Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04									
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M				
6 - Facility Systems																													
65 - Facility Systems Integration																													
Job: 6501 - Facility Systems Integration-DUDEK																													
611.000	Update cost and schedule estimates	11MAR03*	11APR03		0.00	0.00	2,467																						
611.001	Test Decel PS cooling skid	20FEB03A	29APR03	10	1,263.04	12,630.40	2,455																						
660.101	Integration support (dsn rws, interfaces, C&S)	01NOV02A	30SEP03	LOE	18,043.06	53,381.84	2,348																						
Subtotal		01NOV02A	30SEP03		19,306.10	66,012.24	2,348																						
7 - Test Cell Preparation and Machine Assy																													
71 - Shield Wall Seismic Modifications																													
Job: 7101 - Shield Wall Modif Design-PERRY																													
613.001	Design	01APR03*	21MAY03		0.00	13,802.40	691																						
613.005	Final Design	22MAY03	29JUL03		0.00	36,806.40	691																						
Subtotal		01APR03	29JUL03		0.00	50,608.80	691																						
74 - Machine Assembly Planning and Oversight																													
Job: 7401 - TC Prep & Mach Assy Planning-PERRY																													
711A.010	LOE FY03	01NOV02A	30SEP03	LOE	19,697.56	58,276.80	2,348																						
711A.010.1	Prep Final Assembly Plan	03MAR03*	31MAR03		0.00	0.00	2,476																						
711A.011	Review and update WBS 7 cost/schedule baseline	11MAR03*	11APR03		0.00	0.00	2,467																						
EXFAC001	Excess Fac.-Relocate CDX pwr cables*CANCELLED*	01OCT02A	01OCT02A		0.00	0.00																							
EXFAC002	Excess Fac.-Savalge vendor remove PBX device	02JUN03*	29AUG03		0.00	0.00	2,369																						
EXFAC003	Excess Fac.-Clear PBX control room	27JAN03A	21AUG03		0.00	0.00	2,375																						
GPP001	GPP-Upgarde C-Site central chilled wtr plant	01OCT02A	01OCT02A		0.00	0.00																							
GPP002	GPP-CS Water sys refurbishment	03MAR03	03MAR03		0.00	0.00	2,496																						
GPP003	GPP-Demineralizer refurbishment	03MAR03	03MAR03		0.00	0.00	2,496																						
GPP004	GPP-Roofing	03MAR03	03MAR03		0.00	0.00	2,496																						
GPP005	GPP-Test Cell lighting	03MAR03	03MAR03		0.00	0.00	2,496																						
GPP006	GPP-Test Cell HVAC/dew point control	03MAR03	03MAR03		0.00	0.00	2,496																						
GPP007	GPP-C-Site elevators	01APR03*	28APR03		0.00	0.00	2,456																						
GPP008	GPP-Fire suppression	03MAR03	03MAR03		0.00	0.00	2,496																						
Subtotal		01OCT02A	30SEP03		19,697.56	58,276.80	2,348																						

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2/1/03 Status
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 Progress Bar
 Critical Activity

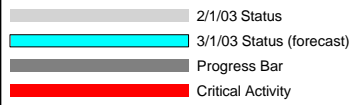
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STATUS THROUGH
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Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl't	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04				
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
8 - Project Oversight and Support																								
81 - Project Management and Control																								
Job: 8101 - Project Management & Control-NEILSON																								
810.001	Project Management Office PPPL FY03	01OCT02A	30SEP03	LOE	231,197.32	579,441.91	2,348											NEILSON=1,520hr ; STRYKOV HAMPTON=624hr ; MS=12\$K ; TRAVEL=12\$K ; SCHMIDT=44						
Subtotal		01OCT02A	30SEP03	LOE	231,197.32	579,441.91	2,348																	
Job: 8102 - NCSX MIE Management ORNL-LYON																								
810.101	Project Management Office ORNL FY03	01OCT02A	30SEP03	LOE	45,617.98	109,133.92	2,348											LYON=356hr ; MS=02\$; TRAVEL=02\$; BENSON=178hr ; AKERS =178hr ;						
Subtotal		01OCT02A	30SEP03	LOE	45,617.98	109,133.92	2,348																	
Job: 8998 - Allocations																								
99.03	PPPL Alloc.FY03	01OCT02A	30SEP03	LOE	44,312.28	111,058.35	2,348											ALLOCATIONS =88.9\$K ;						
Subtotal		01OCT02A	30SEP03	LOE	44,312.28	111,058.35	2,348																	
82 - Project Engineering																								
Job: 8202 - Engr Mgmt & Sys Eng Support-REIERSEN																								
820.110	General Engr Mgmt & SE support	01OCT02A	30SEP03	LOE	121,139.69	303,608.26	2,348											REIERSEN=919hr ; SIMMONS						
820.111	Oversight of Ancillary Systems WBS 2-6	01OCT02A	30SEP03	LOE	26,434.36	66,251.52	2,348											DUDEK =432hr ;						
820.112	Compl Project Plans (CMP,ICMP,DMP,DOC,SEMP,RAM	01OCT02A	31MAR03	80	21,004.16	26,255.20	2,476											REIERSEN=40hr ; SIMMONS=120hr ;						
820.112.1	Prep ISTP Plan	14FEB03A	31MAR03	50	0.00	0.00	2,476											Gentile						
820.113	Compl Project Plan (TEP)	20MAR03*	15APR03		0.00	12,204.80	2,465											REIERSEN=80hr ;						
820.114	Complete Dev of Implementing procedures	02JAN03A	31MAR03	52	19,009.18	36,556.10	2,476											REIERSEN=80hr ; SIMMONS=145hr ;						
Subtotal		01OCT02A	30SEP03		187,587.39	444,875.88	2,348																	
Job: 8203 - Design Integration-REIERSEN																								
820.150	General Design Integration	01OCT02A	30SEP03	LOE	18,261.43	45,768.00	2,348											BROWN =300hr ;						
820.151	Development of Stellarator Core Concepts	01OCT02A	30SEP03	LOE	12,174.29	30,512.00	2,348											BROWN =200hr ;						
820.152	Support aux sys interface with WBS 1	01OCT02A	30SEP03	LOE	12,174.29	30,512.00	2,348											BROWN =200hr ;						
820.153	Develop/maintain Pro/E model pf NCSX Facility	01OCT02A	30SEP03	LOE	24,600.74	61,656.00	2,348											BROWN =175hr ; MORRIS=30						
L4-005	Define geometry of TF/PF windings and coil struc	11DEC02A	31MAR03	60	0.00	0.00	2,476																	
L400-6	Resolve configuration issues re CS	11DEC02A	31MAR03	60	0.00	0.00	2,476																	
Subtotal		01OCT02A	30SEP03		67,210.75	168,448.00	2,348																	
Job: 8204 - Systems Analysis-REIERSEN																								
820.170	Develop Technical Data	20MAR03*	31MAR03		0.00	0.00	2,476											REIERSEN=120hr ;						
820.171	Update Technical data consistent w/dsn evolution	01APR03*	30SEP03		0.00	22,884.00	2,348											REIERSEN=150hr ;						

Activity ID	Activity Description	Forecast Start	Forecast Finish	% Cmpl't	Earned value (BCWP)	Baseline Budget	Total Float	FY03													FY04					
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	
820.172	Assess potential sources of field errors in TC	01OCT02A	28MAR03	66	16,110.34	24,409.60	2,477	BROOKS=160hr ;																		
820.173	General syst analysis support	01OCT02A	30SEP03	LOE	21,305.00	53,396.00	2,348	BROOKS=350hr ;																		
L4-007	Define CS coil locations and envelopes	02DEC02A	16DEC02A	100	0.00	0.00																				
L4-191	Finalize the GRD	10MAR03*	31MAR03	25	0.00	0.00	2,471																			
L4-192	GRD spec review	01APR03	07APR03		0.00	0.00	2,471																			
L4-193	Provide format requirements for performance spec	03MAR03A	08MAR03A	100	0.00	0.00																				
Subtotal		01OCT02A	30SEP03		37,415.34	100,689.60	2,348																			
84 - Project Physics																										
Job: 8401 - Project Physcis-ZARNSTORFF																										
840.200	Develop Healed coil design	01OCT02A	16DEC02A		0.00	0.00																				
840.201	PPPL Project Physics/Engr Analysis FY03	01OCT02A	30SEP03	LOE	100,265.74	251,292.56	2,348	MS=06\$K ; TRAVEL=06\$K ; HUDSON=447hr ; ZARNSTORFF=330hr ; KUGEL=265hrs																		
Subtotal		01OCT02A	30SEP03		100,265.74	251,292.56	2,348																			
Job: 8402 - Project Physics MIE ORNL-LYON																										
840.301	ORNL Project Physics/Engr Analysis FY03	01OCT02A	05SEP03	LOE	44,328.10	99,168.00	2,365	LAZARUS=587 ; TRAVEL=02\$; MS=01\$;																		
Subtotal		01OCT02A	05SEP03	LOE	44,328.10	99,168.00	2,365																			

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 2/1/03 Status
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