



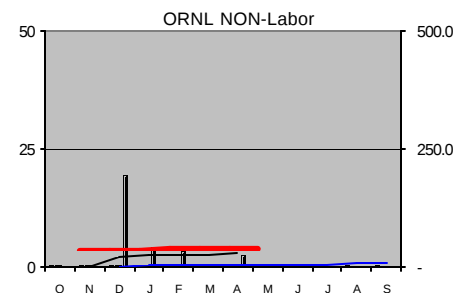
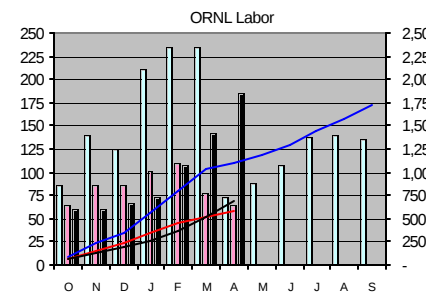
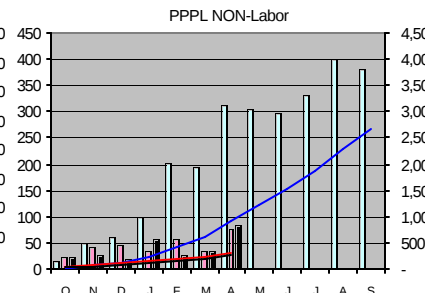
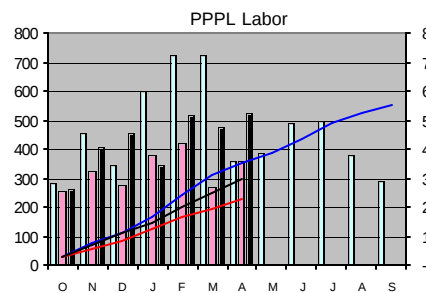
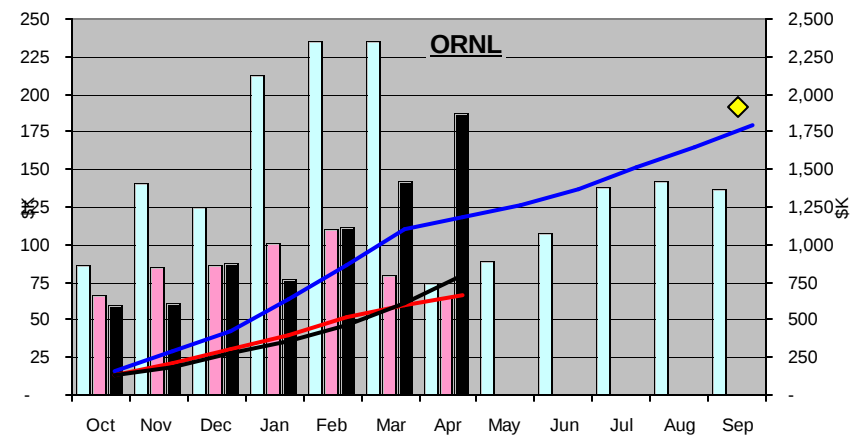
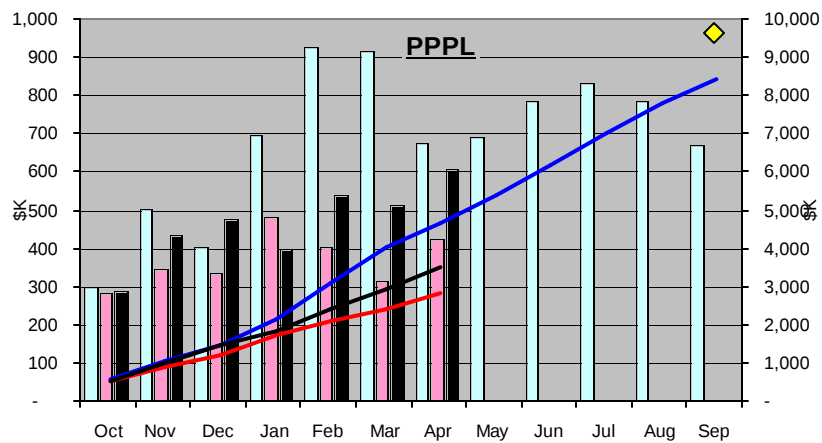
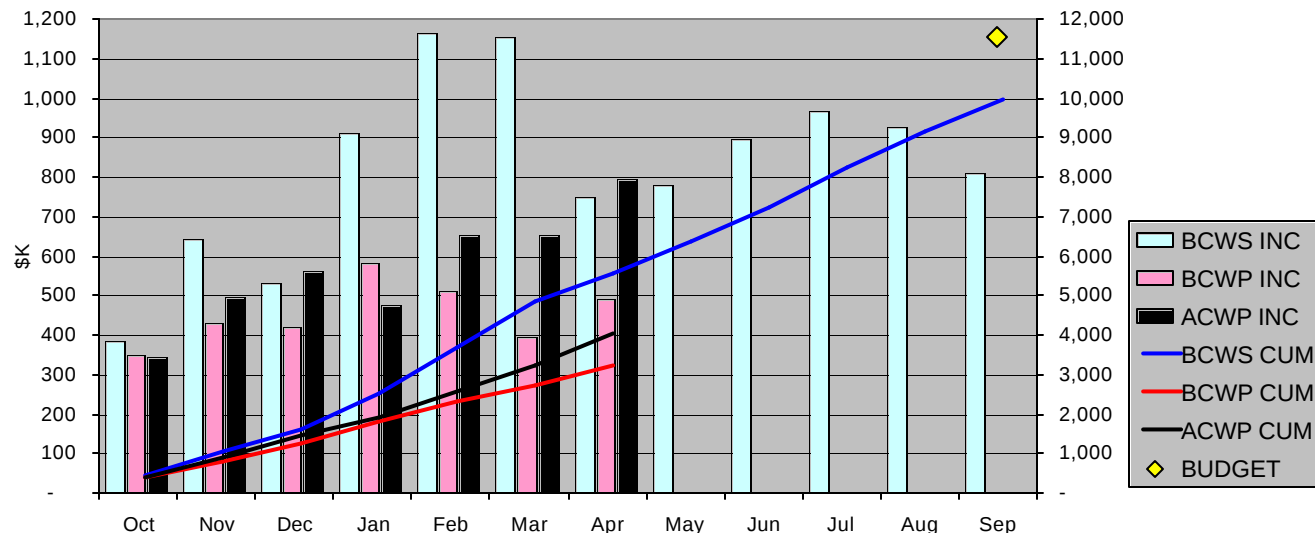
NCSX PCS Reports

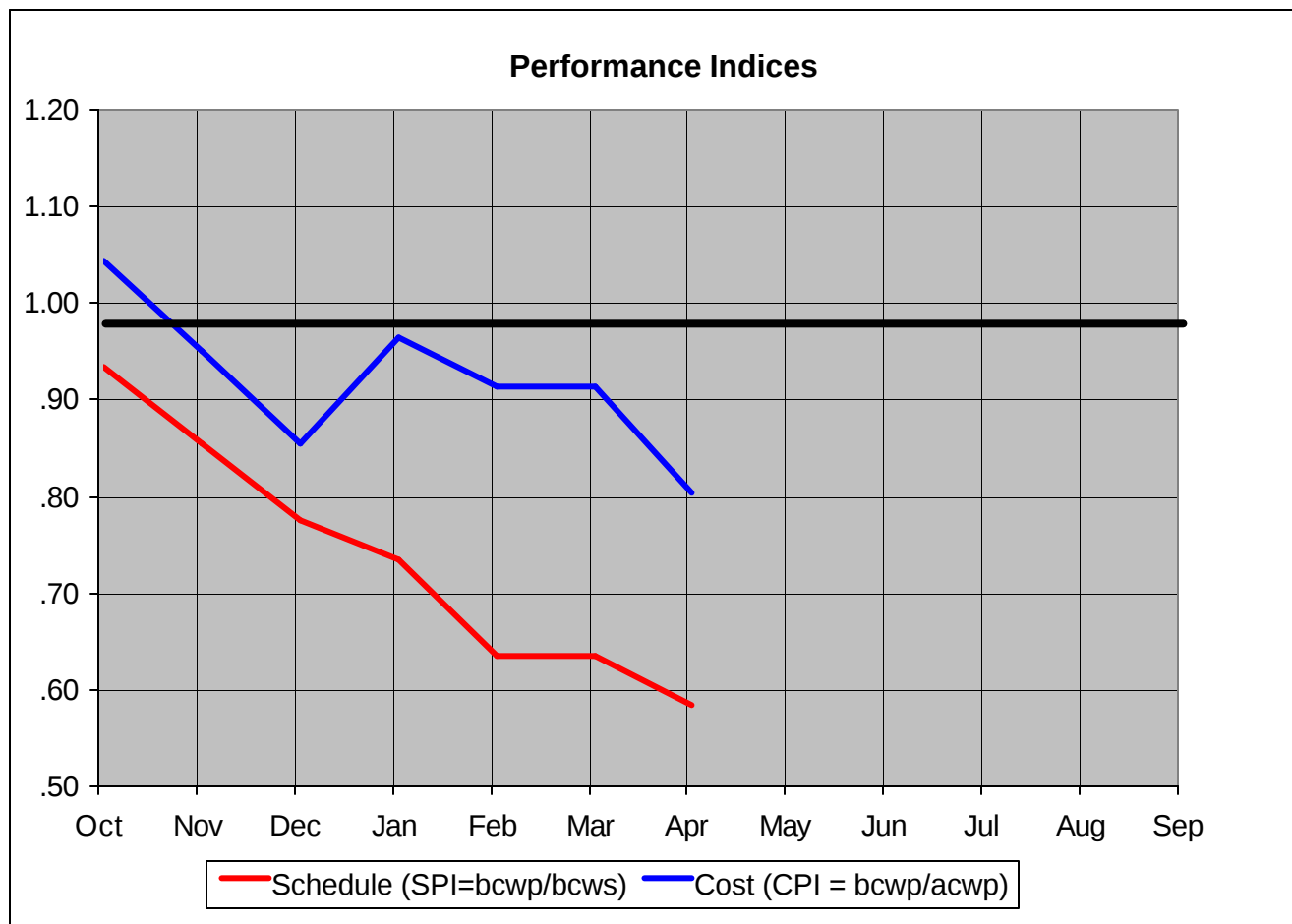
Performance Through

May 1, 2003



NCSX PPPL/ORNL MIE FY 2003 Cost Performance





PrincetonUniversity Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

NCSX

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

APRIL FY03

	CURRENT PERIOD			CUMULATIVE TO DATE								FY03		Vari
	Budgeted Cost		ACWP	Budgeted Cost		ACWP	VARIANCES				Budget Baseline	Forecast		
	BCWS	BCWP		BCWS	BCWP		Sch Var	SPI	Cst Var	CPI				
PPPL and ORNL	\$K			\$K							\$K	\$K		
Advanced Conceptual Design														
1 - Stellarator Core Systems	496	153	453	3,787	1,761	2,327	-2,025	.47	-566	.76	7,061	7,462	-401	
11 In-Vessel Components			0	15	1	0	-14	.05	1	14.03	18	22	-4	
1101 - Limiter Advanced Concep Design			0	15	1	0	-14	.05	1	14.03	18	22	-4	
1102 - Limiter Prelim & Final Design														
12 Vacuum Vessel Systems	85	26	72	639	161	291	-479	.25	-130	.55	1,106	1,714	-608	
1201 - Vacuum Vessel Dsn	10	19	61	376	107	222	-269	.29	-115	.48	378	269	109	
1202 - Vacuum Vessel R&D	75	7	11	263	53	69	-210	.20	-15	.78	625	1,324	-699	
1203 - Vacuum Vessel Final Dsn											102	121	-19	
13 Conventional Coils	5	0	3	108	17	37	-91	.16	-20	.46	432	419	13	
1301 - Conventional Coils Design	5	0	3	108	17	37	-91	.16	-20	.46	432	419	13	
14 Modular Coils	323	96	327	2,405	1,383	1,725	-1,023	.57	-342	.80	4,353	4,058	295	
1401 - Mod. Coil Design (casting&winding)	18	2	61	360	148	230	-212	.41	-82	.64	364	326	38	
1402 - Mod.Coil Analyses			44	201	108	208	-93	.54	-100	.52	201	264	-63	
1403 - Mod. Coil Final Design											358	300	58	
1404 - Mod. Coil Winding Form R&D	210	35	40	401	110	154	-291	.27	-45	.71	1,751	1,643	108	
1405 - Mod. Coil Winding R&D Prep	12	8	85	516	501	561	-15	.97	-59	.89	530	585	-55	
1406 - Mod. Coil Winding R&D	39	51	62	526	309	331	-217	.59	-22	.93	618	544	74	
1407 - Mod. Coil Winding Facility	44		35	402	207	241	-195	.52	-34	.86	531	396	135	
1408 -Mod. Coil Prototype Coil Winding												0	0	
15 1501 - Structures Design	15			109	13	18	-96	.12	-5	.74	283	283	0	
16 1601 - Coil Services Design	14			61			-61				89	89	0	
17 1701 - Cryostat & Base Support Struct Dsn	0	0	5	86	0	8	-85	.00	-8	.05	141	141	0	
18 1801 - Field Period Assembly Design	8	14	3	39	14	7	-24	.37	8	2.15	93	103	-10	
19 1901 - Stellarator Core Management&Integr	44	17	43	325	172	241	-153	.53	-69	.71	547	633	-86	
2 - Plasma Heating, Fueling & Vac Systems	27	104	98	170	140	217	-30	.82	-77	.64	288	296	-8	
2001 - VPS, Gas & Cond sys Design/Oversight		6	16	22	17	28	-6	.75	-11	.60	22	30	-8	
2501 - Neutral Beam Refurbishment	27	98	82	148	123	190	-25	.83	-66	.65	266	266	0	
3 - Diagnostics	14	9	29	172	76	153	-96	.44	-78	.49	225	227	-2	
39 3901 - Diagnostics systems Integration	14	9	29	172	76	153	-96	.44	-78	.49	225	227	-2	
4 - Electrical Power Systems	33	22	6	181	28	15	-152	.16	13	1.89	257	256	1	
43 4301 - Electrical Dsn DC SystemsWBS 432&433	18	3		89	6	5	-83	.07	1	1.24	125	125	0	
44 4401 - Electrical Dsn Control & Protection	4			11			-11				23	23	0	
45 4501 - Electr System Design & Integration	6	19	6	38	22	10	-16	.58	12	2.19	66	66	0	
46 4601 - FCPC Bldg Modifications	5			42			-42				42	42	0	
5 - Central I&C Systems	2	4	4	13	4	4	-9	.33	0	1.09	24	24	0	
58 5801 - Central I&C Integration & Oversight	2	4	4	13	4	4	-9	.33	0	1.09	24	24	0	
6 - Facility Systems	5	5	8	41	30	25	-11	.72	5	1.18	66	66	0	
65 6501 - Facility Systems Integration	5	5	8	41	30	25	-11	.72	5	1.18	66	66	0	
7 - Test Cell Preparation and Machine Assy	14	12	11	39	38	23	-1	.97	15	1.67	109	80	29	
71 7101 - Shield Wall Modifications Design	8	6		8	7		-1	.84	7		51	51	0	
74 7401 - TC Prep & Mach Assy Plan&Oversight	6	6	11	31	31	23	0	1.00	8	1.36	58	29	29	
8 - Project Oversight and Support	157	181	187	1,132	1,105	1,218	-26	.98	-113	.91	1,882	2,054	-172	
81 Project Management and Control	70	71	46	459	460	453	1	1.00	7	1.02	800	763	37	
8101 - Project Management and Control	51	52	23	332	332	310	0	1.00	22	1.07	579	556	23	
8102 - NCSX MIE Management ORNL	9	10	10	64	64	76	0	1.00	-12	.84	109	104	5	
8998 - Allocations	10	10	12	64	64	66		1.00	-2	.97	111	103	8	
82 Project Engineering	55	78	67	467	439	472	-28	.94	-33	.93	732	816	-84	
8202 - Engineering Mgmt & Sys Engr Support	33	37	40	287	275	319	-12	.96	-45	.86	445	579	-134	
8203 - Design Integration	15	15	24	96	97	127	0	1.00	-31	.76	168	185	-17	
8204 - Systems Analysis	7	26	3	84	68	26	-15	.82	43	2.68	119	52	67	
84 Project Physics	31	32	74	206	206	294	1	1.00	-88	.70	350	475	-125	
8401 - Project Physcis	22	22	65	144	144	258	0	1.00	-114	.56	251	376	-125	
8402 - Project Physics MIE ORNL	9	9	9	62	62	36	1	1.01	26	1.73	99	99	0	
Subtotal	747	491	796	5,534	3,182	3,983	-2,352	.58	-801	.80	9,912	10,465	-553	
Contingency														
Management Reserve											1,635	1,082	553	
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		

PrincetonUniversity Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

NCSX

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

APRIL FY03

CURRENT PERIOD			CUMULATIVE TO DATE								FY03		
Budgeted Cost			Budgeted Cost			VARIANCES					Budget	Forecast	Vari
BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI				

PPPL

Advanced Conceptual Design

1 - Stellarator Core Systems	440	107	285	2,801	1,294	1,712	-1,507	.46	-418	.76	5,545	6,163	-618
11 In-Vessel Components													
1101 - Limiter Advanced Concep Design													
1102 - Limiter Prelim & Final Design													
12 Vacuum Vessel Systems	72	3	25	271	19	115	-252	.07	-96	.17	635	1,407	-772
1201 - Vacuum Vessel Dsn		0	13	55	5	46	-50	.09	-41	.11	55	58	-3
1202 - Vacuum Vessel R&D	72	3	11	216	14	69	-202	.06	-55	.20	565	1,324	-759
1203 - Vacuum Vessel Final Dsn											15	25	-10
13 Conventional Coils	5	0	3	108	17	37	-91	.16	-20	.46	419	419	0
1301 - Convential Coils Design	5	0	3	108	17	37	-91	.16	-20	.46	419	419	0
14 Modular Coils	303	90	239	1,998	1,205	1,450	-793	.60	-245	.83	3,664	3,492	172
1401 - Mod. Coil Design (casting&winding)				7		11	-7		-11		7	11	-4
1402 - Mod.Coil Analyses			23	175	107	187	-68	.61	-80	.57	175	264	-89
1403 - Mod. Coil Final Design											110	92	18
1404 - Mod. Coil Winding Form R&D	208	31	34	373	81	119	-292	.22	-38	.68	1,694	1,600	94
1405 - Mod. Coil Winding R&D Prep	12	8	85	516	501	561	-15	.97	-59	.89	530	585	-55
1406 - Mod. Coil Winding R&D	39	51	62	526	309	331	-217	.59	-22	.93	618	544	74
1407 - Mod. Coil Winding Facility	44		35	402	207	241	-195	.52	-34	.86	531	396	135
1408 - Mod. Coil Prototype Coil Winding												0	0
1501 - Structures Design	15			109	13	18	-96	.12	-5	.74	270	270	0
1601 - Coil Services Design	14			61			-61				89	89	0
1701 - Cryostat & Base Support Struct Dsn	0	0	5	86	0	8	-85	.00	-8	.05	141	141	0
1801 - Field Period Assembly Design	8	14	3	39	14	7	-24	.37	8	2.15	93	103	-10
1901 - Stellarator Core Management&Integr	22		10	130	24	77	-106	.19	-53	.32	235	242	-7
2 - Plasma Heating, Fueling & Vac Systems	27	104	98	170	140	217	-30	.82	-77	.64	288	296	-8
2001 - VPS,Gas & Cond sys Design/Oversig			6	16	22	28	-6	.75	-11	.60	22	30	-8
2501 - Neutral Beam Refurbishment	27	98	82	148	123	190	-25	.83	-66	.65	266	266	0
3 - Diagnostics	14	9	29	172	76	153	-96	.44	-78	.49	225	227	-2
3901 - Diagnostics systems Integration	14	9	29	172	76	153	-96	.44	-78	.49	225	227	-2
4 - Electrical Power Systems	33	22	6	181	28	15	-152	.16	13	1.89	257	256	1
4301 - Electrical Dsn DC SystemsWBS 432&	18	3		89	6	5	-83	.07	1	1.24	125	125	0
4401 - Electrical Dsn Control & Protection	4			11			-11				23	23	0
4501 - Electr System Design & Integration	6	19	6	38	22	10	-16	.58	12	2.19	66	66	0
4601 - FCPC Bldg Modifications	5			42			-42				42	42	0
5 - Central I&C Systems	2	4	4	13	4	4	-9	.33	0	1.09	24	24	0
5801 - Central I&C Integration & Oversight	2	4	4	13	4	4	-9	.33	0	1.09	24	24	0
6 - Facility Systems	5	5	8	41	30	25	-11	.72	5	1.18	66	66	0
6501 - Facility Systems Integration	5	5	8	41	30	25	-11	.72	5	1.18	66	66	0
7 - Test Cell Preparation and Machine Assy	14	12	11	39	38	23	-1	.97	15	1.67	109	80	29
7101 - Shield Wall Modifications Design	8	6		8	7		-1	.84	7		51	51	0
7401 - TC Prep & Mach Assy Plan&Oversigh	6	6	11	31	31	23	0	1.00	8	1.36	58	29	29
8 - Project Oversight and Support	139	162	168	1,006	979	1,106	-27	.97	-127	.89	1,674	1,851	-177
81 Project Management and Control	61	61	35	395	396	376	0	1.00	20	1.05	691	659	32
8101 - Project Management and Control	51	52	23	332	332	310	0	1.00	22	1.07	579	556	23
8102 - NCSX MIE Management ORNL													
8998 - Allocations	10	10	12	64	64	66		1.00	-2	.97	111	103	8
82 Project Engineering	55	78	67	467	439	472	-28	.94	-33	.93	732	816	-84
8202 - Engineering Mgmt & Sys Engr Suppc	33	37	40	287	275	319	-12	.96	-45	.86	445	579	-134
8203 - Design Integration	15	15	24	96	97	127	0	1.00	-31	.76	168	185	-17
8204 - Systems Analysis	7	26	3	84	68	26	-15	.82	43	2.68	119	52	67
84 Project Physics	22	22	65	144	144	258	0	1.00	-114	.56	251	376	-125
8401 - Project Physcis	22	22	65	144	144	258	0	1.00	-114	.56	251	376	-125
8402 - Project Physics MIE ORNL													
Subtotal	674	426	609	4,422	2,588	3,255	-1,834	.59	-667	.80	8,187	8,963	-776
Management Reserve											1,439	663	776
TOTAL PPPL											9,626	9,626	
Funding													
Financial Plan BA											8,907	8,907	
FY02 Carryover											+ 445	+ 445	
Rate Adjustment setaside											+ 274	+ 274	
TOTAL PPPL FUNDING											9,626	9,626	

(1) includes \$150k mr for the VV r&d contract. Includes \$140k for the MCC r&d contract

Princeton University Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

NCSX

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

APRIL 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	56	46	168	986	467	615	-518	.47	-148	.76	1,516	1,299	217
11 In-Vessel Components			0	15	1	0	-14	.05	1	14.03	18	22	-4
1101 - Limiter Advanced Concep Design			0	15	1	0	-14	.05	1	14.03	18	22	-4
1102 - Limiter Prelim & Final Design													
12 Vacuum Vessel Systems	13	23	48	368	141	176	-227	.38	-34	.81	471	307	164
1201 - Vacuum Vessel Dsn	10	19	48	321	102	176	-219	.32	-73	.58	323	211	112
1202 - Vacuum Vessel R&D	3	4	0	47	39	0	-8	.84	39	679.17	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	20	6	88	407	177	275	-230	.44	-98	.65	689	566	123
1401 - Mod. Coil Design (casting&winding)	18	2	61	354	148	219	-205	.42	-71	.68	357	315	42
1402 - Mod.Coil Analyses			21	26	1	21	-25	.03	-20	.04	26	0	26
1403 - Mod. Coil Final Design											248	208	40
1404 - Mod. Coil Winding Form R&D	2	5	6	28	28	35	1	1.02	-7	.81	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	23	17	33	195	148	164	-47	.76	-17	.90	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 SystemsWBS 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	18	19	19	126	126	113	1	1.01	14	1.12	208	203	5
81 Project Management and Control	9	10	10	64	64	76	0	1.00	-12	.84	109	104	5
8101 - Project Management and Control													
8102 - NCSX MIE Management ORNL	9	10	10	64	64	76	0	1.00	-12	.84	109	104	5
82 Project Engineering													
8202 - Engineering Mgmt & Sys Engr Suppc													
8203 - Design Integration													
8204 - Systems Analysis													
84 Project Physics	9	9	9	62	62	36	1	1.01	26	1.73	99	99	0
8401 - Project Physcis													
8402 - Project Physics MIE ORNL	9	9	9	62	62	36	1	1.01	26	1.73	99	99	0
Subtotal	74	65	187	1,111	594	728	-518	.53	-134	.82	1,724	1,502	222
Contingency													
Management Reserve											197	419	-222
TOTAL ORNL											1,921	1,921	
Funding													
Financial Plan BA											1,921	1,921	
TOTAL ORNL FUNDING											1,921	1,921	

PrincetonUniversity Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

NCSX

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

APRIL FY03

CURRENT PERIOD			CUMULATIVE TO DATE								FY03		
Budgeted Cost			Budgeted Cost			VARIANCES					Budget		
BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI		Baseline	Forecast	Vari

Research Preparations

PPPL and ORNL

Research Preparations													
8 - Project Oversight and Support													
81 Project Management and Control	37	37	37	240	240	187		1.00	52	1.28	419	284	135
8181 - Research Prep PPPL	14	14	18	93	93	99		1.00	-6	.94	162	146	16
8182 - Research Prep ORNL	23	23	19	147	147	89		1.00	58	1.66	256	138	118
8183 - Research Prep Support LLNL													
84 Project Physics													
8481 - Research Prep Physics	35	35	22	226	226	149		1.00	77	1.52	395	267	128
Subtotal	72	72	59	466	466	336		1.00	130	1.39	813	551	262
Management Reserve											4	235	-231
TOTAL PPPL/ORNL											817	786	31
Funding													
Financial Plan BA											806	806	
Rate Adjustment setaside											-20	-20	
ERWM Allocation Increment]													
TOTAL PPPL/ORNL FUNDING											786	786	

PPPL

Research Preparations													
8 - Project Oversight and Support													
81 Project Management and Control	14	14	18	93	93	99		1.00	-6	.94	162	146	16
8181 - Research Prep PPPL	14	14	18	93	93	99		1.00	-6	.94	162	146	16
8182 - Research Prep ORNL													
8183 - Research Prep Support LLNL													
84 Project Physics													
8481 - Research Prep Physics	35	35	22	226	226	149		1.00	77	1.52	395	267	128
Subtotal	49	49	40	319	319	248		1.00	72	1.29	557	413	144
Management Reserve												113	-113
TOTAL PPPL											557	526	31
Funding													
Financial Plan BA											546	546	
FY02 Carryover													
Rate Adjustment setaside											-20	-20	
TOTAL PPPL FUNDING											526	526	

ORNL

Research Preparations													
8 - Project Oversight and Support													
81 Project Management and Control	23	23	19	147	147	89		1.00	58	1.66	256	138	118
8181 - Research Prep PPPL													
8182 - Research Prep ORNL	23	23	19	147	147	89		1.00	58	1.66	256	138	118
8183 - Research Prep Support LLNL													
84 Project Physics													
8481 - Research Prep Physics													
Subtotal	23	23	19	147	147	89		1.00	58	1.66	256	138	118
Management Reserve											4	122	-118
TOTAL ORNL											260	260	
Funding													
Financial Plan BA											260	260	
TOTAL ORNL FUNDING											260	260	

					TARGET DISCRETIONARY	YTD Costs			Encum	Req's/Forecast	
				BUDGETED	BUDGET	Subcontract Labor	Overtime	Cost (m&s, travel other)			Free Balance
Research Prep				23,000	15,000			15,935			
		S04054	Allan Boozer TO BE CANCEL						3,123	(3,123)	
		S03936	Berkeley Lab Software TO BE CANCEL						2,837	(2,837)	
QPS				23,300	22,000			1,535	-	-	
MIE/R&D				2,627,500							
VV Prototypes (1202)								558			
		S04344	Major Tool		400,000						
			Phase I &II						390,343		
			Phase III (\$10,000 FY04)						-		
		S004345	Rohwedder		400,000						
			Phase I &II						320,426		
			Phase III (\$30,476 FY04)							-	
MCC Prototypes (1404)						5,300					
		S04341	EIO		475,000						
			Phase I &II					20,797	534,545		
			Phase III (\$32,000 FY04)						-		
		S04340	JP Pattern		534,000						
			Phase I &II						520,161		
			Phase III (\$21,000 FY04)						-		
MCC Dsn (1401)								8,143			
			George Steill S/C CADD Designer 4/1/03 - 6/30/03							29,000	
MCC Winding R&D(1405-7)					123,000		19,078	73,098			
		R400114	NB duct mods in TFTR TC							3,500	
		S/C req	Cadd Designer							28,800	
		R359248	Mech/Thermal Testing (REDUCED DOWN FROM \$70K)							20,000	
		PE4092							1,280		
		S429505							1,480		
NB Refurb//VPS (2501)					5,600	-	362	2,712			
		S04299	Insp,test, amint NB ac pwr equipt					14,400			
Diag (3901)					-	-	-	2,291			
Facility (6501)					500	-	-	3,210			
Proj Mgt (8101)					40,500		203	4,743			
Proj Engr (8202/4)							-	7,904			
Proj Physics (8401)								1,123			
		S04337	Georgiyevskiy					7,500	2,500		
Sub-Total				2,673,800	2,015,600	5,300	19,643	163,949	1,776,695	75,340	-25,000
ContingencyManagement Reserve											
VV Prototypes					150,000						
MCC Prototypes					140,000						
Sub-Total					290,000	Management Reserve Available =					265,000
TOTAL					2,305,600	5,300	19,643	163,949	1,776,695	75,340	265,000
Proposed:											
Autoclave											\$75,000
Coil support struct in autoclave & test stand											\$14,040
MCC Turning Fixture materials											\$30,000
								Management Reserve Remaining =		\$145,960	

BUDGET STATUS

Funding BA	Budget (incl carryover & rate adj)	Cost Thru APRIL	EAC
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PPPL

MIE	6,537	5,412	553	6,256
MIE Management Reserve	-	1,439		
ACD	2,370	2,775	2,702	2,707
Res Prep	546	526	248	412
QPS	260	304	53	97
Total	9,713	10,456	3,556	9,472
<i>less May fin plan</i>	-81	-81		
	9,632	10,375		

ORNL

MIE	1,171	974	167	942
MIE Management Reserve	-	197	-	
ACD	750	750	560	560
Res Prep	260	260	89	138
Total	2,181	2,181	816	1,640

NCSX May 1st Cost Performance Analysis

Vacuum Vessel Design and vendor R&D program

Job 1201 and 1202

Paul Goranson

BCWS	BCWP	ACWP	Sched Vari.	SPI	Cost Vari.	CPI
639	161	291	-478	0.25	-130	0.55

VV design , analysis and scope sheets **2 1/2 weeks float** relative to a **September 11 PDR**. See detailed critical path sheet.
Receipt of MIT, cost and schedule plans forecast 6/6/03.

Conventional Coils Design

Job 1301

Mike Kalish

BCWS	BCWP	ACWP	Sched Vari.	SPI	Cost Vari.	CPI
108	17	37	-91	0.16	-20	0.46

SRD,SDD, General arrngts, and ICD's late. Cost and schedule estimates late. **PDR calculated to be mid November based upon remaining budgeted hours. Forecast not available from job manager.**

Modular Coil Design, analyses and vendor R&D program

Jobs 1401, 1402 and 1404

Dave Williamson

BCWS	BCWP	ACWP	Sched Vari.	SPI	Cost Vari.	CPI
962	366	592	-596	0.38	-226	0.62

Current forecasts; Pro/E models 5/30, ICD's 6/30, Prelim dsn dwgs 5/30, STL models 6/30, analyses late 6/30. **Critical tasks have less than 2 weeks float relative to a September 11th PDR.** See detailed critical path sheet.

Modular coil in-house winding R&D activities

1406, and 1407

Jim Chrzanowski

BCWS	BCWP	ACWP	Sched Vari.	SPI	Cost Vari.	CPI
928	516	572	-412	0.56	-56	0.90

Schedule variance driven by;

- 1) Determination of materials properties and selection of epoxy resin system forecast 6/24.
- 2) Keystone tests forecast 7/16
- 3) FDR for autoclave scheduled for 5/23/03. Fabrication forecast to begin in June.

Stellarator Core Structure, Coil Services,Cryostat,and Field Period Assy Design

Jobs 1501,1601,1701

Loesser, Williamson, Gettlefinger

BCWS	BCWP	ACWP	Sched Vari.	SPI	Cost Vari.	CPI
256	13	26	-243	0.05	-13	0.50

Design tasks started late.

PDR for coil structure (wbs 15 Loesser) calculated to be mid October based upon remaining budgeted hours. Forecast not available from job manager.

Stellarator Core Management & Integration

Job 1901

Brad Nelson

BCWS	BCWP	ACWP	Sched Vari.	SPI	Cost Vari.	CPI
325	172	241	-153	0.53	-69	0.71

Stellarator core assy dsn criteria 2 mos. behind (waiting on CTD data). Time constant/rqmnts,loop voltage, transient field error analysis, tolerance studies, vv disruption loads forecast mid June.

Diagnostics

Job 3901

Dave Johnson

BCWS	BCWP	ACWP	Sched Vari.	SPI	Cost Vari.	CPI
172	76	153	-96	0.44	-77	0.50

Magnetics integration 3 mos. behind, SXR Tomography 3 mos. behind, and Port Orientation/allocation 2 months behind plan. PPPL researcher charges greater than estimated for work performed.

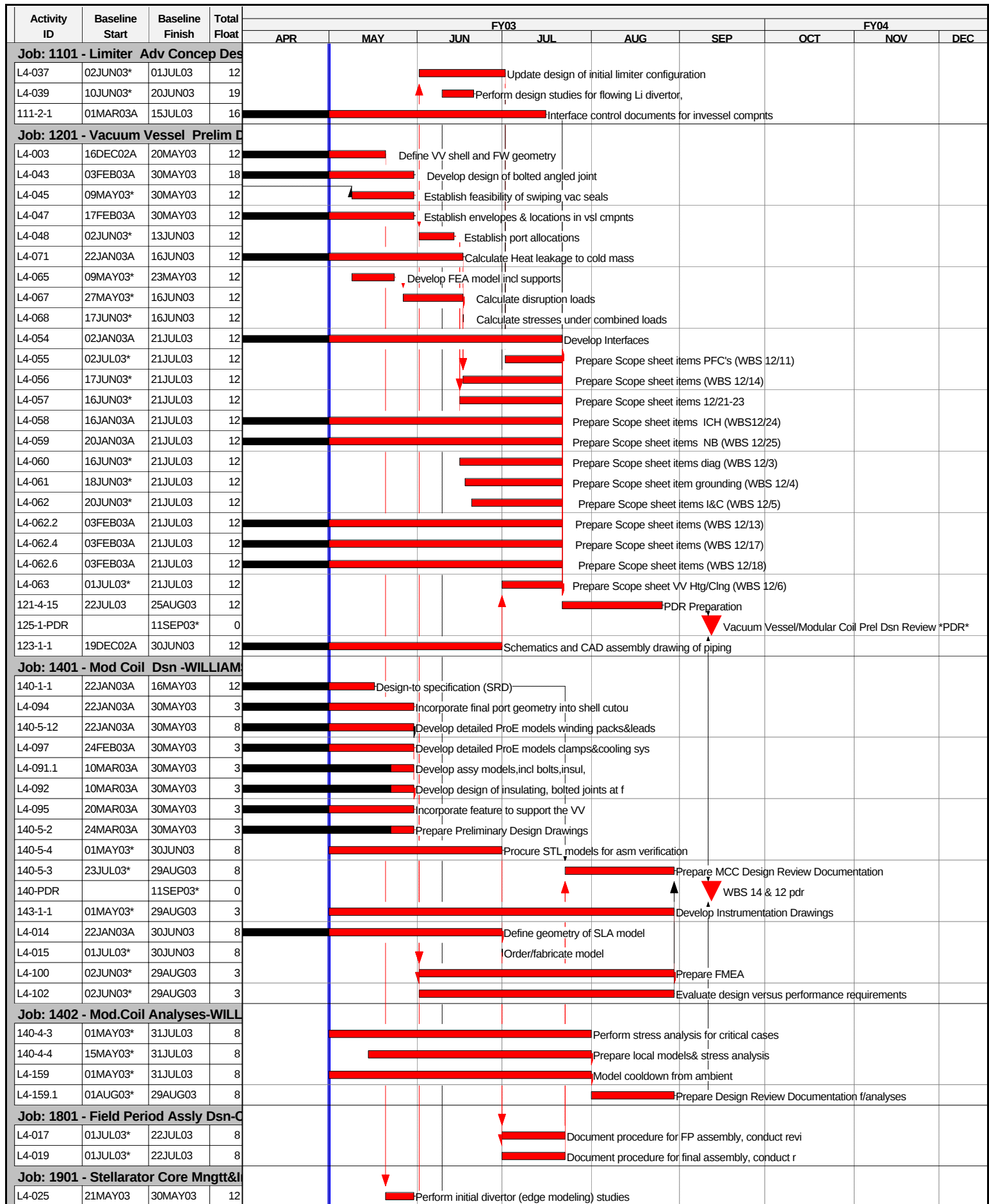
Electrical systems design and integration

Jobs 4301, 4401,4501,4601

Raki Ramakrishnan

BCWS	BCWP	ACWP	Sched Vari.	SPI	Cost Vari.	CPI
181	28	15	-153	0.15	13	1.87

Work initiated to clearout the FCPC area. DC cabling design behind schedule;PDR is now forecast 11/7/03, a 5 1/2 mo. Slip.



Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmplt	Earned value (BCWP)	Baseline Budget	Total Float	Gantt Chart															
									FY03										FY04					
									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	02JUN03*	30JUN03	-129	20	432.00	2,160.00	26	Goranson = 16hrs															
L4-035	Incorporate radiation shields in FW panels (if r	06JAN03A	16JUN03	0	33	0.00	0.00	23																
L4-036	Calculate bakeout heat loads on VV and in-vessel	06JAN03A	05JUN03	0	75	0.00	0.00	30																
L4-037	Update design of initial limiter configuration	02JUN03*	01JUL03	0		0.00	0.00	12																
L4-038	Perform design studies for CFC liner with divert	17JUN03*	16JUN03	0		0.00	0.00	23																
L4-039	Perform design studies for flowing Li divertor,	10JUN03*	20JUN03	0		0.00	0.00	19																
111-2-1	Interface control documents for invessel compnts	01MAR03A	15JUL03	-74	5	382.00	7,640.00	16	GORANSON=24 ; ORNL DESIGN =40 ;															
111-3-1	Update cost estimate for Limiter	01MAY03*	16JUN03	-55		0.00	5,400.00	36	GORANSON=40 ;															
111-3-2	Update planning for FY-04	12AUG03*	09SEP03	0		0.00	2,700.00	2,319	GORANSON=20 ;															
Subtotal		06JAN03A	09SEP03	0		814.00	17,900.00	2,319																
Job: 1102 - Limiter Prelim&Final Design-GORANSON																								
111-1-1	CAD models and drawings of limiter dsn	03OCT03*	15JAN04	0		0.00	15,200.00	2,208	GORANSON=80 ; ORNL DEISGN =40 ;															
111-1-2	Thermal analysis of limiters	16JAN04	30JAN04	0		0.00	3,240.00	2,208	GORANSON=24 ;															
111-1-3	Stress analysis of limiters	02FEB04	24FEB04	0		0.00	3,240.00	2,208	GORANSON=24 ;															
111-1-4	Assembly plan for limiters	30JAN04*	15APR04	0		0.00	3,240.00	2,171	GORANSON=24 ;															
111-2-2	Interface control document for diagnostics	01JUN04*	27AUG04	0		0.00	3,240.00	2,077																
111-2-3	Interface control document for Utilities	01JUN04*	27AUG04	0		0.00	8,040.00	2,077																
111-4-1	Design-to specification	05MAR04*	21APR04	0		0.00	5,400.00	2,167	GORANSON=40 ;															
111-4-2	Draft Build-to (manufacturing) specification for	12AUG04*	09SEP04	0		0.00	2,700.00	2,069																
111-4-3	Final Build-to (manufacturing) specification for	12AUG04*	09SEP04	0		0.00	2,700.00	2,069																
111-5-1	Demonstrate installation feasibility	05MAR04*	19MAY04	0		0.00	5,400.00	2,147	GORANSON=40 ;															
111-6-1	CAD models and drawings of limiter final design,	03NOV03*	01MAR04	0		0.00	19,600.00	2,204	GORANSON=80 ; ORNL DEISGN =80 ;															
111-6-2	Final thermal analysis of limiters	01JUN04*	30SEP04	0		0.00	5,400.00	2,054																
111-6-3	Final stress analysis of vessel limiters	01JUN04*	30SEP04	0		0.00	9,210.00	2,054																
114-1-1	Sensor specification and schematics of sensor pl	03NOV03*	01MAR04	0		0.00	4,120.00	2,204	GORANSON=24 ; ORNL DEISGN =08 ;															
114-1-2	Interface and cost data input for tasks 111-2, 1	03NOV03*	01MAR04	0		0.00	2,160.00	2,204	GORANSON=16 ;															
Subtotal		03OCT03	30SEP04	0		0.00	92,890.00	2,054																
Run Date 09MAY03 14:00									0304 NCSX Sheet 1 of 20															
© Primavera Systems, Inc.									STATUS THROUGH 4/30/03															

Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmpl't	Earned value (BCWP)	Baseline Budget	Total Float	FY03										FY04																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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12 - Vacuum Vessel Systems																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													</

Run Date 09MAY03 14:00

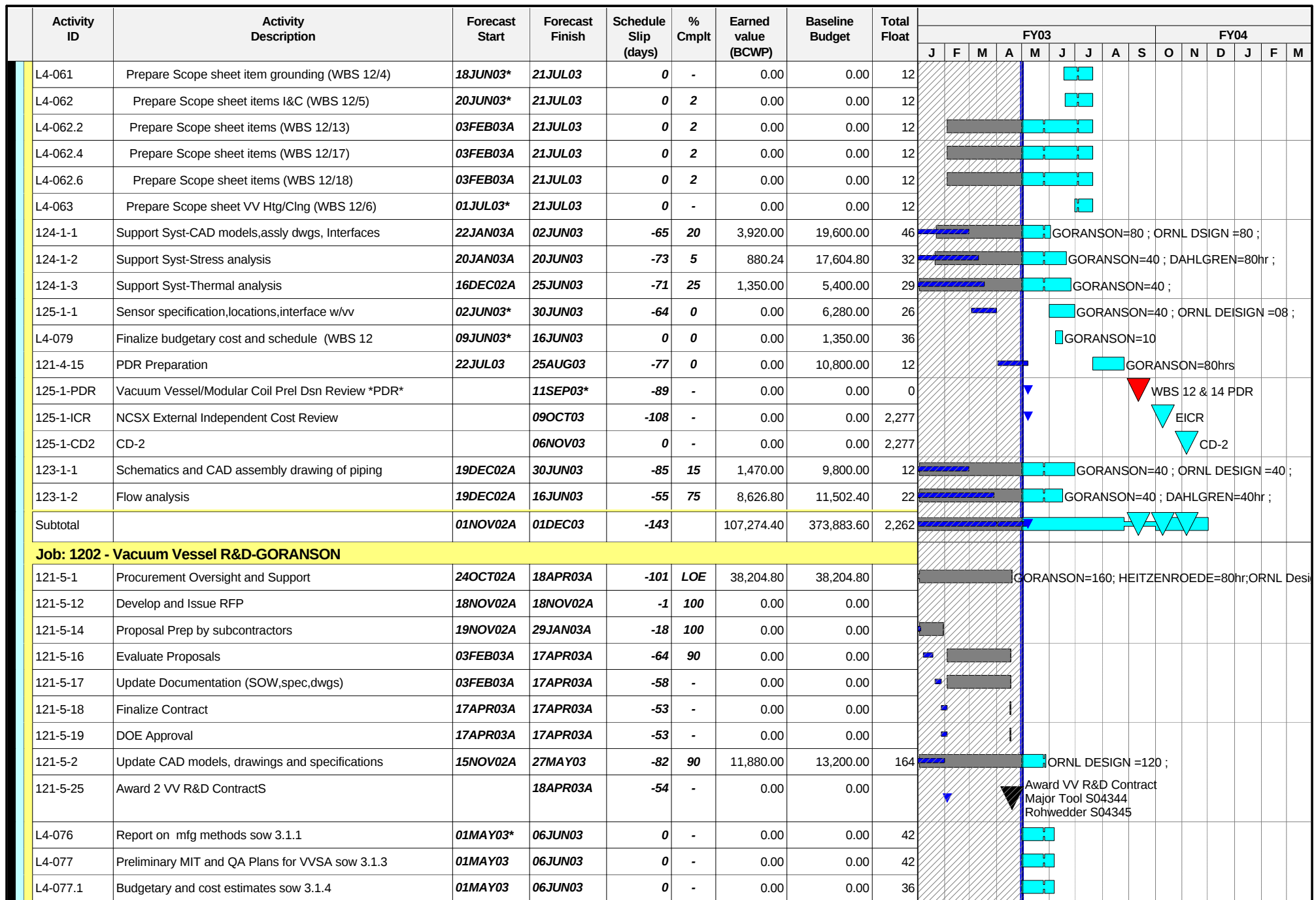
 5/1/03 Status (forecast)
 WAF 10/1/02 Baseline
 Progress Bar
 Critical Activity

0304

NCSX
FY03 Work Authorization Plan

Sheet 2 of 20

STATUS THROUGH
4/30/03



	Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmplt	Earned value (BCWP)	Baseline Budget	Total Float	FY03										FY04																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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	130-2-3	External Trim Coil drawings, models, SDD Sect IV	01MAY03*	09SEP03	0		0.00	36,614.40	2,319																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													</

14 - Modular Coils

Job: 1401 - Mod Coil Dsn -WILLIAMSON

140-1-1	Design-to specification (SRD)	22JAN03A	16MAY03	-34	75	8,640.00	11,520.00	12																
140-5-11	Develop detailed ProE models of winding forms	22JAN03A	28FEB03A	0	100	33,180.00	33,180.00																	
L4-093	Incorporate features to resolve issue of multipl	22JAN03A	28FEB03A	0	100	0.00	0.00																	
L4-094	Incorporate final port geometry into shell cutou	22JAN03A	30MAY03	0	70	0.00	0.00	3																
L4-098	Develop design of wings, including structural at	22JAN03A	28FEB03A	0	100	0.00	0.00																	
140-5-12	Develop detailed ProE models winding packs&leads	22JAN03A	30MAY03	0	70	9,650.00	19,300.00	8																
L4-097	Develop detailed ProE models clamps&cooling sys	24FEB03A	30MAY03	0	70	9,650.00	19,300.00	3																
140-2-1	Develop ICD for conv coils.vessel,structure	24MAR03A	30JUN03	-64	20	3,299.20	16,496.00	23																
L4-091.1	Develop assy models,incl bolts,insul,	10MAR03A	30MAY03	0	70	13,510.00	19,300.00	3																
L4-092	Develop design of insulating, bolted joints at f	10MAR03A	30MAY03	0	70	0.00	0.00	3																
L4-095	Incorporate feature to support the VV	20MAR03A	30MAY03	0	70	0.00	0.00	3																
L4-105	Develop ICD with conventional coils (WBS 12)	24MAR03A	30JUN03	0	20	0.00	0.00	23																
L4-096	Incorporate features required for FP and final a	27MAR03A	30MAY03	0	20	0.00	0.00	67																
L4-106	Develop ICD with coil structures (WBS 13)	24MAR03A	30JUN03	0	20	0.00	0.00	23																

Run Date 09MAY03 14:00

 5/1/03 Status (forecast)
 WAF 10/1/02 Baseline
 Progress Bar
 Critical Activity

0304

NCSX
FY03 Work Authorization Plan

Sheet 5 of 20

STATUS THROUGH
4/30/03

Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmplt	Earned value (BCWP)	Baseline Budget	Total Float	FY03								FY04									
									J	F	M	A	M	J	J	A	S	O	N	D	J	F	M			
L4-107	Develop ICD with diagnostics (WBS 15)	17MAR03A	30JUN03	0	20	0.00	0.00	23																		
140-2-3	Develop ICD with cryo,power, I&C	24MAR03A	30JUN03	-64	20	2,668.80	13,344.00	23																		
140-5-2	Prepare Preliminary Design Drawings	24MAR03A	30MAY03	-44	20	8,722.00	43,610.00	3																		
L4-108	Develop ICD with WBS 4, including grounding and	03MAR03A	30JUN03	0	20	0.00	0.00	23																		
L4-109	Develop ICD with I&C (WBS 5)	24MAR03A	30JUN03	0	20	0.00	0.00	23																		
L4-110	Develop ICD with cryogenic systems (WBS 62)	24MAR03A	30JUN03	0	20	0.00	0.00	23																		
140-1-01	Update CDR models and drawings	21OCT02A	20DEC02A	-1	100	43,200.00	43,200.00																			
140-1-02	Revise ProE conceptual-level models	16DEC02A	30APR03A	0	100	15,602.40	15,602.40																			
140-5-4	Procure STL models for asm verification	01MAY03*	30JUN03	-85		0.00	16,080.00	8																		
140-1-2	Develop build-to specifications	05MAY03*	16MAY03	-34		0.00	11,520.00	81																		
140-3-1	Develop cost and schedule estimates	01MAY03*	16MAY03	-34		0.00	23,040.00	76																		
140-5-3	Prepare MCC Design Review Documentation	23JUL03*	29AUG03	-81		0.00	17,360.00	8																		
140-PDR	WBS 14 & 12 pdr		11SEP03*	0		0.00	0.00	0																		
143-1-1	Develop Instrumentation Drawings	01MAY03*	29AUG03	-128		0.00	10,160.00	3																		
L4-004	Define geometry of modular coil winding forms	22JAN03A	24FEB03A	0	100	0.00	0.00																			
L4-012	Resolve issue of final fit-up of multiple mating	22JAN03A	24FEB03A	0	100	0.00	0.00																			
L4-014	Define geometry of SLA model	22JAN03A	30JUN03	0	50	0.00	0.00	8																		
L4-015	Order/fabricate model	01JUL03*	30JUN03	0		0.00	0.00	8																		
L4-100	Prepare FMEA	02JUN03*	29AUG03	0		0.00	11,520.00	3																		
L4-102	Evaluate design versus performance requirements	02JUN03*	29AUG03	0		0.00	11,520.00	3																		
Subtotal		21OCT02A	11SEP03	-89		148,122.40	336,052.40	0																		
Job: 1402 - Mod.Coil Analyses-WILLIAMSON																										
140-4-01	Update conceptual design analysis	01OCT02A	13DEC02A	-10	100	85,891.28	85,891.28																			
140-4-2	Update 2D/3D thermal analysis incl insulation	16DEC02A	31MAR03A	-6	100	18,307.20	18,307.20																			
L4-160	Perform cooldown analysis following a pulse	28FEB03A	30APR03A	0	100	0.00	0.00																			
140-4-1	Develop FE models and perform EM &struc analysis	03MAR03A	30MAY03	-70	30	3,610.08	12,033.60	51																		
L4-155	Calculate EM loads, identify critical load cases	01MAY03*	30JUN03	0		0.00	18,307.20	30																		
L4-156	Update material properties based on R&D results	01MAY03	30JUN03	0		0.00	11,862.40	30																		
140-4-3	Perform stress analysis for critical cases	01MAY03*	31JUL03	-93		0.00	48,648.00	8																		
140-4-4	Prepare local models& stress analysis	15MAY03*	31JUL03	-86		0.00	18,136.00	8																		
L4-159	Model cooldown from ambient	01MAY03*	31JUL03	0		0.00	18,136.00	8																		

Run Date 09MAY03 14:00

 5/1/03 Status (forecast)
 WAF 10/1/02 Baseline
 Progress Bar
 Critical Activity

0304

NCSX
FY03 Work Authorization Plan

Sheet 6 of 20

STATUS THROUGH
4/30/03

Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmplt	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04											
									J	F	M	A	M	J	J	A	S	O	N	D	J	F	M									
L4-159.1	Prepare Design Review Documentation f/analyses	01AUG03*	29AUG03	0		0.00	18,136.00	8	WILLIAMSON=20 Fan=50 Zatz																							
Subtotal		01OCT02A	29AUG03	-107		107,808.56	249,457.68	8																								
Job: 1403 - Mod. Coil Final Design-WILLIAMSON																																
140-1-3	Final Build-to (manufacturing) specification for	12SEP03*	23DEC03	-72		0.00	30,150.74	200	WILLIAMSON=																							
140-3-5	Update planning for FY-04	12SEP03*	23DEC03	-74		0.00	0.00	200	WILLIAMSON=																							
140-4-5	Re-assess all analysis for final design and upda	12SEP03*	23DEC03	-61		0.00	0.00	222	WILLIAMSON=80 ; ZATZ=240hr ; JUN=160hr ; FAN=240hr ;																							
140-6-1	CAD models of modular coil assembly final design	12SEP03*	23DEC03	-78		0.00	0.00	222	WILLIAMSON=																							
140-6-2	CAD drawings of all parts, subassemblies, interf	12SEP03*	23DEC03	-61		0.00	0.00	200	ORNL DESIGN=																							
140-6-3	Final design review documentation prep	15JAN04	13FEB04	-90		0.00	41,360.00	191	WILLIAMSON=120 ; ORNL DESIGN=40 ; NELSON=120																							
140-6-3.1	FDR Modular Coils		26MAR04	-120		0.00	0.00	161																								
140-6-4	Disposition FDR Chits and finalize procurmnt pkg	29MAR04	23APR04	0		0.00	0.00	161																								
Subtotal		12SEP03	23APR04	-140		0.00	71,510.74	161																								
Job:1404-Mod Coil Winding Form R&D-HEITZENROEDER																																
142-1-05	Pre Documentation and Issue RFP	01OCT02A	18OCT02A	0	100	26,299.68	26,299.68																									
142-1-06	Vendors Prep Proposals	21OCT02A	16DEC02A	-1	-	0.00	0.00																									
142-1-07	Evaluate & Negotiate Proposals w/vendors	17DEC02A	17JAN03A	-10	-	0.00	0.00																									
142-1-08	DOE Review & Approve	31JAN03A	31JAN03A	-7	-	0.00	0.00																									
142-1-1	Answer bidder questions, eval bids,select vendrs	17DEC02A	17JAN03A	-10	LOE	17,964.80	17,964.80		WILLIAMSON=40 ; HEITZENROEDE=80hr ;																							
142-1-10	Proj UpdateTech Pkg (remove cladding)	01MAY03	30APR03	-70	-	0.00	0.00	54																								
142-10.1	Proj UpdateTech Pkg (M50 coils,cooling,VPI)	01MAY03*	30APR03	0	-	0.00	0.00	35																								
142-1-15	Award MCC R&D Contract to EIO		11MAR03A	-34	-	0.00	0.00		Award Mod. Coil Casting R&D ContractS																							
142-1-2A	Phase I -MIT Plan/cost for produc articles EIO	15MAR03A	15MAY03	-32	54	24,556.80	41,982.40	54	WILLIAMSON=20 ; HEITZENROEDE=40hr ; SC=25\$K ;																							
142-1-2AP	Phase I -MIT plan for prototype EIO	15MAR03A	15MAY03	0	54	24,556.80	41,982.40	2,399	WILLIAMSON=20 ; HEITZENROEDE=40hr ; SC=25\$K ;																							
142-1-30	RELEASE EIO FOR PROTOTYPE FABRICATION		02JUN03*	0	0	0.00	0.00	191																								
142-1-3A	Phase II - Fabricate Prototype- [EIO]	03JUN03*	02JAN04	-61	0	0.00	615,436.43	199	WILLIAMSON SC=450\$K ;																							
C-061	Castings-R&D Casting Reports EIO		02JAN04	-73		0.00	0.00	199																								
142-1-4A	Phase III - Final MIT plans, detailed est EIO	26APR04*	21MAY04	-160	0	0.00	108,735.00	161																								
142-1-16	Award MCC R&D Contract to JP Pattern		14MAR03A	0	-	0.00	0.00		Award Mod. Coil Casting R&D ContractS																							
142-1-2B	Phase I -MIT Plan/cost prod articles JP Pattern	14MAR03A	23MAY03	-38	6	7,971.26	41,982.40	48	WILLIAMSON=20 ; HEITZENROEDE=40hr ; SC=25\$K ;																							
142-1-2BP	Phase I -MIT plan for prototype JP PAttern	14MAR03A	20MAY03	0	6	8,339.54	41,982.40	2,396	WILLIAMSON=20 ; HEITZENROEDE=40hr ; SC=25\$K ;																							
142-1-31	RELEASE JP Pattern FOR PROTOTYPE FABRICATION		02JUN03*	0	0	0.00	0.00	191																								

Run Date09MAY03 14:00

5/1/03 Status (forecast)

WAF 10/1/02 Baseline

Progress Bar

Critical Activity

0304

NCSX

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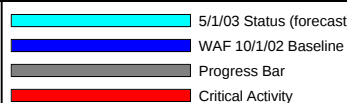
FY03 Work Authorization Plan

STATUS THROUGH4/30/03

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Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmplt	Earned value (BCWP)	Baseline Budget	Total Float	FY03										FY04																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Job: 1406 - Mod. Coil Winding R&D-CHRZANOWSKI																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</

Run Date 09MAY03 14:00



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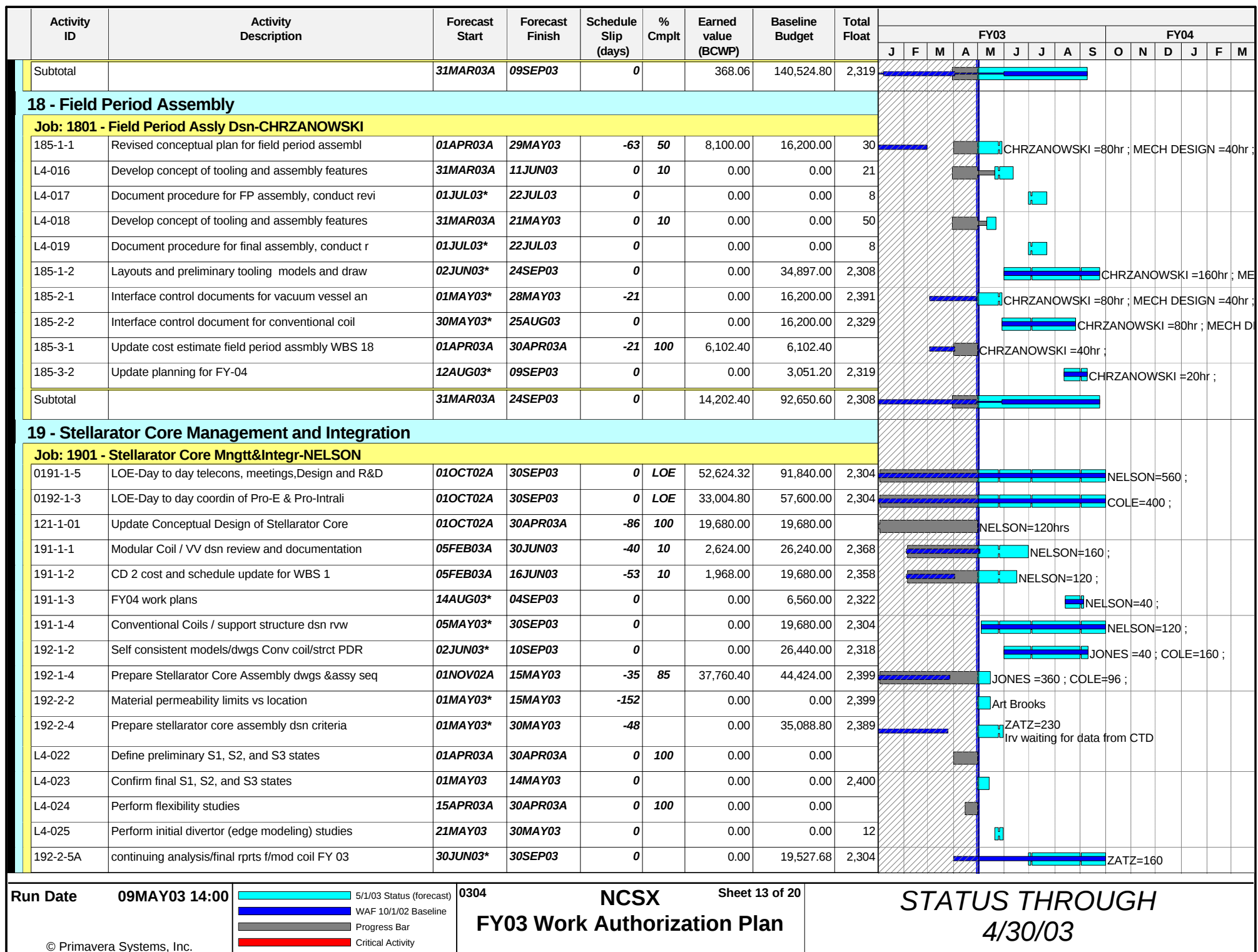
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FY03 Work Authorization Plan

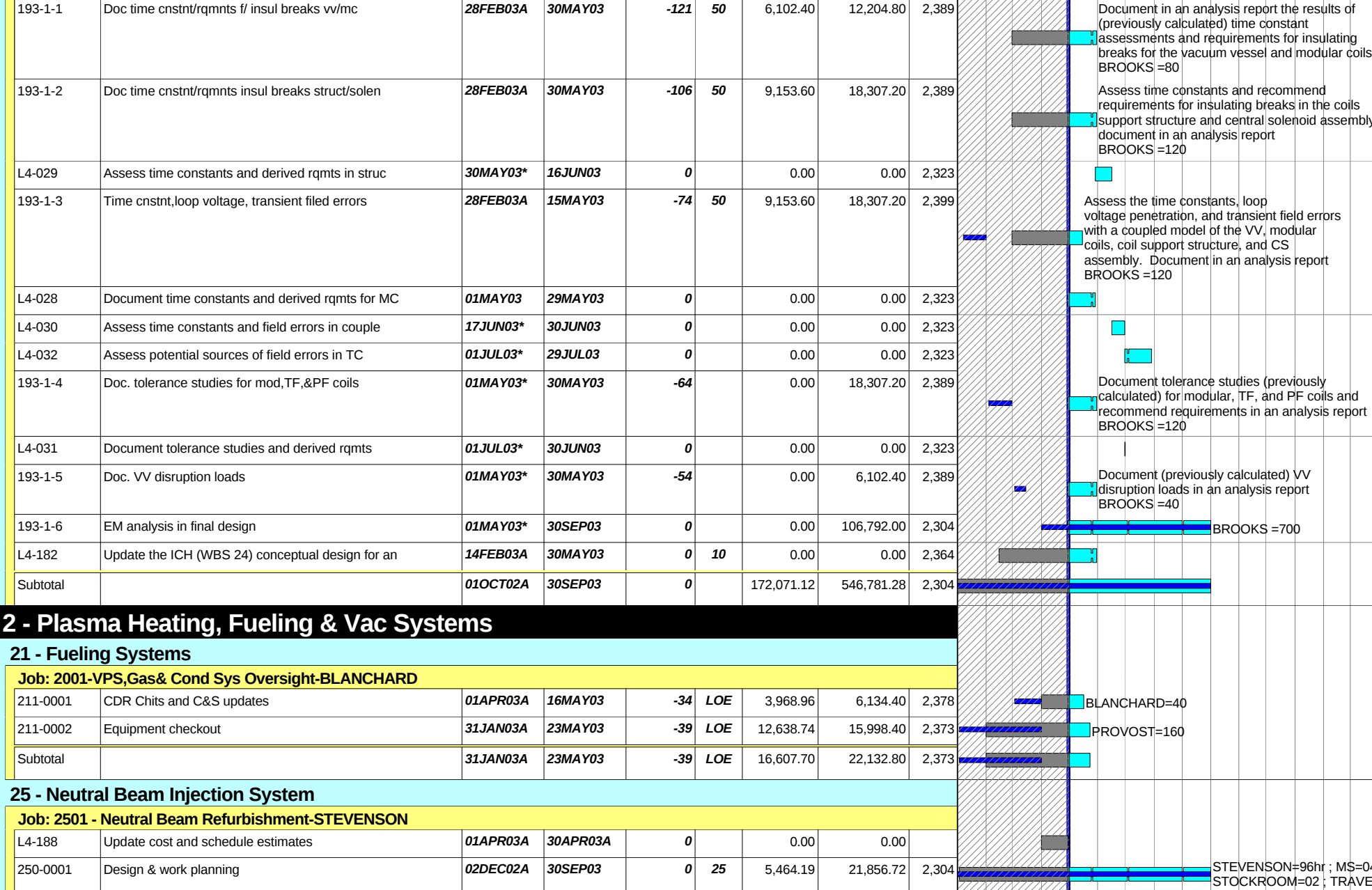
STATUS THROUGH
4/30/03

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	Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmpl	Earned value (BCWP)	Baseline Budget	Total Float	FY03												FY04																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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	193-1-1	Doc time cnstnt/rqmnts f/ insul breaks vv/mc	28FEB03A	30MAY03	-121	50	6,102.40	12,204.80	2,389																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				</



2 - Plasma Heating, Fueling & Vac Systems

21 - Fueling Systems

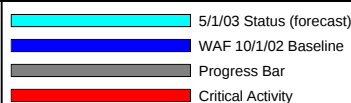
Job: 2001-VPS, Gas & Cond Sys Oversight-BLANCHARD								
211-0001	CDR Chits and C&S updates	01APR03A	16MAY03	-34	LOE	3,968.96	6,134.40	2,378
211-0002	Equipment checkout	31JAN03A	23MAY03	-39	LOE	12,638.74	15,998.40	2,373
Subtotal		31JAN03A	23MAY03	-39	LOE	16,607.70	22,132.80	2,373

25 - Neutral Beam Injection System

Job: 2501 - Neutral Beam Refurbishment-STEVENSON								
L4-188	Update cost and schedule estimates	01APR03A	30APR03A	0		0.00	0.00	
250-0001	Design & work planning	02DEC02A	30SEP03	0	25	5,464.19	21,856.72	2,304

Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Crmplt	Earned value (BCWP)	Baseline Budget	Total Float	FY03					FY04									
									J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
250-0003	Systems Engineering & Interfaces	02DEC02A	30SEP03	0	10	1,373.47	13,734.72	2,304	STEVENSON=96hr ;														
250-0005	Design Layout and Routing	02DEC02A	30SEP03	0	25	2,855.16	11,420.64	2,304	CARSON=112hr ;														
250-0006	Procedures	28OCT02A	30SEP03	0	20	1,631.52	8,157.60	2,304	CARSON=80hr ;														
250-0007	Power Supply Eval-Pole Xfmr AC Power Test	02JAN03A	30APR03A	-63	100	13,734.72	13,734.72		CAMP=96hr ;														
250-0007.1	AC power equipt Insp, test,maint R367433	01APR03A	30APR03A	0	100	0.00	0.00																
250-0009	Power Supply Eval-Clean Accel Rectifier	02DEC02A	30MAY03	-81	10	707.37	7,073.74	2,375	CARSON=32hr ; NBI TECH=53hr ;														
250-0011	Power Supply Eval-Hipot Accel Rectifier	02JUN03*	06JUN03	-46		0.00	7,073.74	2,375	CARSON=32hr ; NBI TECH=53hr ;														
250-0013	Power Supply Eval-Local Test Accel Rectifier	09JUN03	19JUN03	-19		0.00	7,073.74	2,375	CARSON=32hr ; NBI TECH=53hr ;														
250-0015	Power Supply Eval-Evaluate Phase Controller	02JAN03A	16SEP03	-37	10	407.88	4,078.80	2,314	ROSSI =40hr ;														
250-0017	Power Supply Eval-Modulator Restoration	21OCT02A	30MAY03	-119	60	3,193.97	5,323.28	2,389	GIBILISCO=24hr ; NBI TECH=40hr ;														
250-0019	Power Supply Eval-Fault Detector Evaluation	02DEC02A	30APR03A	-68	100	5,323.28	5,323.28		GIBILISCO=24hr ; NBI TECH=40hr ;														
250-0021	Power Supply Eval-Crowbar Test	01MAY03	12JUN03	-68		0.00	5,323.28	2,286	GIBILISCO=24hr ; NBI TECH=40hr ;														
250-0023	Power Supply Eval-Relocate DL to Mod Area	13JUN03	25JUL03	-68		0.00	5,323.28	2,286	GIBILISCO=24hr ; NBI TECH=40hr ;														
250-0025	Power Supply Eval-Accel System Test	28JUL03	24OCT03	-68		0.00	45,281.00	2,286	CARSON=160hr ; GIBILI NBI TECH=160hr ;														
250-0026	Purchase Leak Detector *not required*	30APR03A	30APR03A	-60	N/R	33,000.00	33,000.00		MS=25\$K ;														
250-0027	Beamline #1 Evaluations-Vacuum Test	02JAN03A	30APR03A	-43	100	9,117.90	9,117.90		CARSON=30hr ; GIBILISCO=30hr ; YAGER =30hr ;														
250-0029	Beamline #2 Evaluations-Vacuum Test	02JAN03A	30APR03A	-23	100	9,117.90	9,117.90		CARSON=30hr ; GIBILISCO=30hr ; YAGER =30hr ;														
250-0031	Beamline #3 Vac Test **FURTHER WORK NOT REQ'D**	02JAN03A	30APR03A	-2	100	9,117.90	9,117.90		CARSON=30hr ; GIBILISCO=30hr ; YAGER =30hr ;														
250-0033	Beamline #4 Vac Test **FURTHER WORK NOT REQ'D**	02JAN03A	30APR03A	20	100	9,117.90	9,117.90		CARSON=30hr ; GIBILISCO=30hr ; YAGER =30hr ;														
250-0035	Beamline #1 Evaluations-Cryo Pump Test	24FEB03A	30MAY03	20	10	911.79	9,117.90	2,389	CARSON=30hr ; GIBILISCO=30hr ; YAGER =30hr ;														
250-0037	Beamline #2 Evaluations-Cryo Pump Test	24FEB03A	30MAY03	41	2	182.35	9,117.90	2,389	CARSON=30hr ; GIBILISCO=30hr ; YAGER =30hr ;														
250-0039	Beamline #3 Cryo Pump Test FURTHER WORK NOT REQD	24FEB03A	30APR03A	84	100	9,117.90	9,117.90		CARSON=30hr ; GIBILISCO=30hr ; YAGER =30hr ;														
250-0041	Beamline #4 Cryo Pump Test FURTHER WORK NOT REQD	24FEB03A	30APR03A	105	100	9,117.90	9,117.90		CARSON=30hr ; GIBILISCO=30hr ; YAGER =30hr ;														
NEW-001	D1 Rectifier Water System	01JAN03A	30APR03A	0	90	0.00	0.00		\$4.6k of effort														
NEW-002	Cryo feedthrough Mod for clearances	01APR03A	30JUN03	0	5	0.00	0.00	2,368															
NEW-003	Repair existing leak detector	01APR03A	28APR03A	0	100	0.00	0.00		\$8.1k of effort														
NEW-004	Mobile Vac System Reactivation	01JAN03A	31MAR03A	0	100	0.00	0.00		\$8.1k of effort														
NEW-005	Modular DI Water System Mods	01MAY03*	30MAY03	0		0.00	0.00	2,389															
NEW-006	ESAT water sys cooling	01FEB03A	28FEB03A	0	100	0.00	0.00		\$2.8k of effort														
NEW-007	B system water	01MAR03A	30APR03A	0	100	0.00	0.00																

Run Date 09MAY03 14:00



0304

NCSX FY03 Work Authorization Plan

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STATUS THROUGH 4/30/03

Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmpl	Earned value (BCWP)	Baseline Budget	Total Float	FY03										FY04						
									J	F	M	A	M	J	J	A	S	O	N	D	J	F	M		
	Subtotal	21OCT02A	24OCT03	-18		123,493.10	266,721.74	2,286																	
3 - Diagnostics																									
39 - Diagnostics Integration																									
Job: 3901 - Diagnostics sys Integration-JOHNSON																									
390-1	DIAGNOSTIC INTEGRATION	01JAN03A	02SEP03	-238		0.00	0.00	2,355																	
390-101	refine measurement requirements	01JAN03A	30MAY03	-106	40	4,005.96	10,014.88	2,420	JOHNSON =16hr ; STRATTON =16hr ; TAKAHASHI =16hr ; FREDRICKSON =16hr																
390-102	refine diagnostics/research plan	01JAN03A	02SEP03	-1	30	1,653.56	5,511.84	2,355	JOHNSON =16hr ; STRATTON =16hr																
390-103	prepare physics meetings presentations	01MAY03*	30MAY03	-65		0.00	3,260.32	2,420	JOHNSON =16hr																
390-104	prepare VV PDR material	01MAY03*	28MAY03	-20		0.00	5,511.84	2,422	JOHNSON =16hr ; STRATTON =16hr																
390-105	review and modify WBS3 cost estimates	24FEB03A	12MAY03	-30	40	652.06	1,630.16	2,434	JOHNSON =08hr																
390-2	PORT ORIENTATION/ALLOCATION ISSUES	01OCT02A	30MAY03	-173		0.00	0.00	2,420																	
390-201	prioritize diagnostics for access	01OCT02A	31OCT02A	-1	100	2,755.92	2,755.92																		
390-202	prep drawings package for specialist meetings	01OCT02A	31OCT02A	-1	100	4,083.92	4,083.92																		
390-203	layouts of diagnostic sightlines	28OCT02A	14MAY03	-108	70	19,291.44	27,559.20	2,432	JOHNSON =80hr ; STRATTON =80hr																
390-204	attend/follow-up wkly meetings on sightlines	02DEC02A	30MAY03	-44	60	23,896.80	39,828.00	2,420	JOHNSON =80hr ; STRATTON =80hr ; FEDER =80hr																
390-205	explore cryostat implications	02DEC02A	30MAY03	-44	30	1,714.23	5,714.08	2,420	JOHNSON =16hr ; FEDER =16hr																
390-206	provide port orientation info f/VV design	01MAY03*	30MAY03	-22		0.00	23,292.48	2,420	JOHNSON =32hr ; STRATTON =32hr ; FEDER =80hr																
390-3	SXR TOMOGRAPHY INTEGRATION INTO VV	01MAY03	29MAY03	-172		0.00	0.00	2,421																	
390-301	investigate integration with modified VV wedge	01MAY03*	30MAY03	-129		0.00	7,965.60	2,420	JOHNSON =16hr ; STRATTON =16hr ; FEDER =16hr																
390-302	invest feasibility of AXUV diode array approach	03JAN03A	29MAY03	-108	30	675.46	2,251.52	2,421	STRATTON =16hr																
390-303	invest feasibility scintillator/fiber optics	03JAN03A	29MAY03	-108	20	450.30	2,251.52	2,421	STRATTON =16hr																
390-304	prepare and present physics meeting presentation	01MAY03*	30MAY03	-86		0.00	2,352.64	2,420	STRATTON =08hr ; FEDER =08hr																
390-305	provide input to VV PDR	01MAY03*	30MAY03	-65		0.00	1,125.76	2,420	JSTRATTON =08hr																
390-4	MAGNETIC DIAGNOSTICS	02DEC02A	01JUL03	-195		0.00	0.00	2,398																	
390-401	define measurement reqts for slow magnetics	01MAR03A		-84	30	2,631.65	8,772.16		JOHNSON =32hr ; TAKAHASHI =16hr																
390-402	invest space envelopes magn sensors inside vsl	02DEC02A		-40	70	4,564.45	6,520.64		TAKAHASHI =32hr																
390-403	consider altern locations electr vac feedthrus	01APR03A	01JUL03	-84	80	3,602.43	4,503.04	2,398	TAKAHASHI =32hr																
390-404	invest space envel for magn sensors outside vsl	24FEB03A	01JUL03	-84	80	3,602.43	4,503.04	2,398	TAKAHASHI =32hr																
390-405	engr mtg present space envel/mounting concepts	01MAY03*	28MAY03	-63		0.00	2,251.52	2,422	TAKAHASHI =16hr																
390-406	document space envelope for slow magnetics	01MAY03*	28MAY03	-43		0.00	2,251.52	2,422	TAKAHASHI =16hr																
390-407	define high freq. Mirnov coil requirements	03JAN03A	28MAY03	-127	70	788.03	1,125.76	2,422	FREDRICKSON =08hr																
Run Date		09MAY03 14:00		0304		NCSX		Sheet 16 of 20		STATUS THROUGH 4/30/03															
		5/1/03 Status (forecast)				FY03 Work Authorization Plan																			
		WAF 10/1/02 Baseline																							
		Progress Bar																							
		Critical Activity																							
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Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmplt	Earned value (BCWP)	Baseline Budget	Total Float	FY03										FY04						
									J	F	M	A	M	J	J	A	S	O	N	D	J	F	M		
390-408	conc dsn space envel high freq Mirnov coils	03JAN03A	29MAY03	-108	50	1,125.76	2,251.52	2,421	FREDRICKSON =16hr ;																
390-5	E-BEAM CONCEPT EXPLORATION	01MAY03	30JUL03	-215		0.00	0.00	2,378																	
390-501	define space and time resolution requirements	01MAY03*	30JUN03	0		0.00	8,889.12	2,399	JOHNSON =16hr ; TAKAHASHI =40hr																
390-502	define vacuum scenarios to be probed	01APR03A	30JUN03	0	5	281.44	5,628.80	2,399	TAKAHASHI =40hr ;																
390-503	prep physics mtg presenta reqnts, scenarios	01JUL03*	30JUL03	0		0.00	3,377.28	2,378	TAKAHASHI =24hr ;																
390-504	continue concept exploration detecting e-beam	01MAY03*	30JUN03	0		0.00	14,115.84	2,399	TAKAHASHI =48hr ; FEDER =48hr																
390-601	Investig Diagn Issues w/other stellartor groups	01MAY03*	30JUL03	0		0.00	16,148.08	2,378	JOHNSON =24hr ; STRATTON =40hr ;																
Subtotal		01OCT02A	02SEP03	-1		75,775.84	225,448.00	2,355																	
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	30SEP03	-123	10	3,541.68	35,416.80	2,232	RAKI=80hr ; BISESTI=120hr ; VANKIRK=120hr ;																
432-0002	D to C Site DC Cabling -Prelim Design Review	01OCT03*	28OCT03	-115		0.00	12,335.44	2,232	RAKI=24hr ; BISESTI=40hr ; VANKIRK=40hr ;																
432-0004	D to C Site DC Cabling -Final Design	29OCT03	21JAN04	-115		0.00	14,874.80	2,232	RAKI=40hr ; BISESTI=40hr ; VANKIRK=40hr ;																
432-0006	D Site DC Systems -SOW, IP	17MAR03A	31JUL03	-61	5	0.00	0.00	2,346																	
433-0001	D Site DC Systems -Design & Requisitions	01APR03A	30SEP03	-123	7	1,519.26	21,703.60	2,224	RAKI=40hr ; BISESTI=80hr ; VANKIRK=80hr ;																
433-0002	DSite DC Systems -Design Review Prep	01OCT03	07NOV03	-123		0.00	12,335.44	2,224	RAKI=24hr ; BISESTI=40hr ; VANKIRK=40hr ;																
433-0003	D Site DC Systems and D-C Site DC Cabling-PDR		07NOV03	-123		0.00	0.00	2,224																	
433-0004	D Site DC Systems -Final Design	10NOV03	02FEB04	-123		0.00	14,874.80	2,224	RAKI=40hr ; BISESTI=40hr ; VANKIRK=40hr ;																
433-0005	D Site DC Systems and D-C Site DC Cabling-FDR		02FEB04	-123		0.00	0.00	2,224																	
433-0007	Disconnect & Grid Switch Design	17MAR03A	30SEP03	-143	10	971.80	9,718.00	2,304	RAKI=40hr ; VANKIRK=40hr																
433-0008	Disconnect & Grid Switch Procurement spec	01MAY03*	30SEP03	-154		0.00	8,119.92	2,304	RAKI=40hr ; VANKIRK=24hr																
Subtotal		30JAN03A	02FEB04	-123		6,032.74	129,378.80	2,224																	
44 - Control and protection Systems																									
Job: 4401 - Electr Dsn Control & Protection-RAKI																									
445-0001	Coil Protection Design	01AUG03*	04SEP03	-22		0.00	22,891.20	2,322	MARSALA=80hr ; SCHNEIDER=																
Subtotal		01AUG03	04SEP03	-22		0.00	22,891.20	2,322																	
45 - Power System Design and Integration																									
Job: 4501 - Electr Sys Design & Integration-RAKI																									
451-0000	Update Cost & Schedule Baseline	01APR03A	30APR03A	-22		0.00	0.00																		

Run Date 09MAY03 14:00

 5/1/03 Status (forecast)
 WAF 10/1/02 Baseline
 Progress Bar
 Critical Activity

0304

NCSX
FY03 Work Authorization Plan

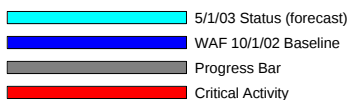
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STATUS THROUGH
4/30/03

Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmpl't	Earned value (BCWP)	Baseline Budget	Total Float	FY03										FY04								
									J	F	M	A	M	J	J	A	S	O	N	D	J	F	M				
711A.010.1	Prep Final Assembly Plan	01MAY03*	09JUN03	0	10	0.00	0.00	2,383																			
711A.011	Review and update WBS 7 cost/schedule baseline	01MAY03*	09JUN03	-70	50	0.00	0.00	2,383																			
EXFAC001.1	Excess Fac.-Crane repairs/mods,CS high bay(cc7230	12MAY03*	16JUN03	0		0.00	0.00	2,378																			
EXFAC002	Excess Fac.-Savalge vendor remove PBX (cc7230)	02JUN03*	29AUG03	-43		0.00	0.00	2,325																			
EXFAC003	Excess Fac.-Clear PBX cntrl rm/Safe PBX (cc7230)	27JAN03A	30SEP03	-27	50	0.00	0.00	2,304																			
EXFAC004	Remove Fire protection PLT wall (cc9450)	01MAY03*	30MAY03	0		0.00	0.00	2,389																			
EXFAC005	Remove Fire Protection under platform (cc7230)	01APR03A	30APR03A	0	100	0.00	0.00																				
EXFAC006	Remove Fire Protection Control rm walls(cc7230)	01MAY03*	30MAY03	0		0.00	0.00	2,389																			
GPP001	GPP-Upgarde C-Site central chilled wtr plant*TBD	01OCT02A	01OCT02A	0		0.00	0.00																				
GPP002	GPP-CS Water sys refurbishment **TBD**	01MAY03	01MAY03	-142		0.00	0.00	2,409																			
GPP003	GPP-Demineralizer refurbishment **TBD**	01MAY03	01MAY03	-142		0.00	0.00	2,409																			
GPP004	GPP-Roofing **TBD**	01MAY03	01MAY03	-142		0.00	0.00	2,409																			
GPP005	GPP-Test Cell lighting **TBD**	01MAY03	01MAY03	-142		0.00	0.00	2,409																			
GPP006	GPP-Test Cell HVAC/dew point control **TBD**	01MAY03	01MAY03	-142		0.00	0.00	2,409																			
GPP007	GPP-C-Site elevators **TBD**	01MAY03	01MAY03	-64		0.00	0.00	2,409																			
GPP008	GPP-Fire suppression **TBD**	01MAY03	01MAY03	-142		0.00	0.00	2,409																			
Subtotal		01OCT02A	30SEP03	0		30,828.43	58,276.80	2,304																			
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	0	LOE	332,020.21	579,441.91	2,304																			
Subtotal		01OCT02A	30SEP03	0	LOE	332,020.21	579,441.91	2,304																			
Job: 8102 - NCSX MIE Management ORNL-LYON																											
810.101	Project Management Office ORNL FY03	01OCT02A	30SEP03	-1	LOE	64,061.61	109,133.92	2,335																			
Subtotal		01OCT02A	30SEP03	-1	LOE	64,061.61	109,133.92	2,335																			
82 - Project Engineering																											
Job: 8202 - Engr Mgmt & Sys Eng Support-REIERSEN																											
820.110	General Engr Mgmt & SE support	01OCT02A	30SEP03	0	LOE	173,967.53	303,608.26	2,304																			
820.111	Oversight of Ancillary Systems WBS 2-6	01OCT02A	30SEP03	0	LOE	37,962.12	66,251.52	2,304																			
820.112	Compl Project Plans (CMP,ICMP,DMP,DOC,SEMP,RAM	01OCT02A	30MAY03	-111	90	23,629.68	26,255.20	2,389																			
Run Date 09MAY03 14:00									STATUS THROUGH 4/30/03																		
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Activity ID	Activity Description	Forecast Start	Forecast Finish	Schedule Slip (days)	% Cmpl	Earned value (BCWP)	Baseline Budget	Total Float	FY03										FY04					
									J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	
820.113	Prep ISTP Plan	14FEB03A	30MAY03	-84	65	7,933.12	12,204.80	2,389	REIERSEN=80hr ;															
820.114	Complete Dev of Implementing procedures	02JAN03A	30MAY03	-84	85	31,072.69	36,556.10	2,389	REIERSEN=80hr ; SIMMONS=145hr ;															
Subtotal		01OCT02A	30SEP03	0		274,565.14	444,875.88	2,304																
Job: 8203 - Design Integration-REIERSEN																								
820.150	General Design Integration	01OCT02A	30SEP03	0	LOE	26,225.06	45,768.00	2,304	BROWN =300hr ;															
820.151	Development of Stellarator Core Concepts	01OCT02A	30SEP03	0	LOE	17,483.38	30,512.00	2,304	BROWN =200hr ;															
820.152	Support aux sys interface with WBS 1	01OCT02A	30SEP03	0	LOE	17,483.38	30,512.00	2,304	BROWN =200hr ;															
820.153	Develop/maintain Pro/E model pf NCSX Facility	01OCT02A	30SEP03	0	LOE	35,328.88	61,656.00	2,304	BROWN =175hr ; MORRIS=															
L4-005	Define geometry of TF/PF windings and coil struc	11DEC02A	30MAY03	0	90	0.00	0.00	2,389																
L400-6	Resolve configuration issues re CS	11DEC02A	30MAY03	0	90	0.00	0.00	2,389																
Subtotal		01OCT02A	30SEP03	0		96,520.70	168,448.00	2,304																
Job: 8204 - Systems Analysis-REIERSEN																								
820.170	Develop Technical Data	15APR03A	25APR03A	-87	100	18,307.20	18,307.20		REIERSEN=120hr ;															
820.171	Update Technical data consistent w/dsn evolution	25APR03A	30SEP03	0	5	1,144.20	22,884.00	2,304	REIERSEN=150hr ;															
820.172	Assess potential sources of field errors in TC	01OCT02A	16JUN03	-55	75	18,307.20	24,409.60	2,378	BROOKS=160hr ;															
820.173	General syst analysis support	01OCT02A	30SEP03	0	LOE	30,595.91	53,396.00	2,304	BROOKS=350hr ;															
L4-007	Define CS coil locations and envelopes	02DEC02A	16DEC02A	0	100	0.00	0.00																	
L4-191	Finalize the GRD	07MAR03A	06MAY03	0	65	0.00	0.00	2,406																
L4-192	GRD spec review	03APR03A	03APR03A	0	100	0.00	0.00																	
L4-193	Provide format requirements for performance spec	03MAR03A	08MAR03A	0	100	0.00	0.00																	
Subtotal		01OCT02A	30SEP03	0		68,354.51	118,996.80	2,304																
84 - Project Physics																								
Job: 8401 - Project Physcis-ZARNSTORFF																								
840.200	Develop Healed coil design	01OCT02A	16DEC02A	-27		0.00	0.00																	
840.201	PPPL Project Physics/Engr Analysis FY03	01OCT02A	30SEP03	0	LOE	143,990.64	251,292.56	2,304	MS=06\$k ; TRAVEL=06\$k ; HUDSON=447hr ; ZARNST KU=330hr ;KUGEL=265hrs															
Subtotal		01OCT02A	30SEP03	0		143,990.64	251,292.56	2,304																
Job: 8402 - Project Physics MIE ORNL-LYON																								
840.301	ORNL Project Physics/Engr Analysis FY03	01OCT02A	05SEP03	0	LOE	62,277.50	99,168.00	2,352	LAZARUS=587 ; TRAVEL=02\$; MS=01\$;															
Subtotal		01OCT02A	05SEP03	0	LOE	62,277.50	99,168.00	2,352																

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