

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
cc 9450 - NCSX Fabrication													
1 - Stellarator Core Systems													
11 - In-Vessel Components													
111 - Limiters													
First Wall Components													
	111-001	Title I design WBS 111 limiters	03FEB03*	29APR03		21,549.25	149						
	111-011	Title II design WBS 111 limiters	01JUL04*	29SEP04		47,106.70	516						
	111-021	In-house R&D	03FEB03*	23APR03		12,685.73	826						
	111-031	Title III engr	03OCT05*	31MAR06		18,340.29	1,695						
	111-037	First Wall Panels Procurement	03OCT05*	23DEC05		89,390.95	254						
	111-041	In-house Fab/assy	26DEC05	20JAN06		11,521.28	254						
PFC Local I&C													
	116-001	Title I design WBS 116 PFC local I&C	03FEB03*	29APR03		12,953.93	149						
	116-011	Title II design WBS 116 PFC local I&C	01JUL04*	29SEP04		14,082.39	496						
	116-012	FDR Limiters WBS 111 and 116		29SEP04		0.00	516						
	116-031	Title III engr	03OCT05*	17MAR06		3,434.92	1,705						
	116-037	PFC Local I&C Procurement	03OCT05*	23DEC05		4,808.51	234						
	116-041	In-house Fab/assy	26DEC05	20JAN06		4,412.32	234						
12 - Vacuum Vessel Systems													
121 - Vacuum Vessel Assembly													
Design													
	121-001	Title I design WBS 121 vac vsl	01OCT02*	01MAY03		166,504.88	147						
	121-002	WBS 12 and 14 concurrent PDR IA		02MAY03		0.00	146						
	121-011	Title II design WBS 121 vac vsl	05MAY03	02DEC03		189,282.46	146						
	121-012	WBS 121 vac vsl sheel FDR		02DEC03		0.00	146						
	121-032	Select Vendors for R&D	01OCT02*	30DEC02		0.00	162						
	121-033	Award 2 Vendors for R&D	31DEC02	20JAN03		0.00	162						
	121-034	Vendor R&D (1/A)	21JAN03	29SEP03	B	651,756.16	162						

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	121-035	PPPL Prep and Issue RFP Package	22OCT03	16DEC03		0.00	146						
	121-036	Vendors prepare proposals	17DEC03	24FEB04		0.00	146						
	121-037	Project Evaluate Proposals and Award	25FEB04	23MAR04		0.00	146						
	121-038	Award Production Vendor	24MAR04			0.00	146						
	Period #1												
	121-039	VV vendor phase funding 1 (E/A F/B)	24MAR04	11FEB05	B	963,213.40	1,807			41=500\$; 4e=\$333.33; 35=8\$;			
	121-100	Mfg Planning/Design tooling & fixturing	24MAR04	15JUN04		0.00	146						
	121-110	Procure raw material ,purchased components&fixt	16JUN04	05OCT04		0.00	146						
	121-120	Form Panels	06OCT04	19OCT04		0.00	146						
	121-125	Fabricate & pre-machine port flanges	06OCT04	02NOV04		0.00	146						
	121-130	Fabricate 60* periods	03NOV04	30NOV04		0.00	146						
	121-140	Inspect profile	01DEC04	02DEC04		0.00	146			.			
	121-150	Stress relieve anneal	03DEC04	06DEC04		0.00	146			.			
	121-160	Sand blast smooth	07DEC04	08DEC04		0.00	146			.			
	121-170	Electro Polish surfaces	09DEC04	17DEC04		0.00	146			-			
	121-180	Weld 120* periods	20DEC04	24DEC04		0.00	146			-			
	121-190	Inspect Profile	27DEC04	28DEC04		0.00	146			.			
	121-200	Machine Port openings	29DEC04	04JAN05		0.00	146			-			
	121-210	Thermal cycle vessel	05JAN05	06JAN05		0.00	146			.			
	121-220	Perform vacuum test at 150C	07JAN05	10JAN05		0.00	146			.			
	121-230	Perform final dimensional inspection	11JAN05	17JAN05		0.00	146			-			
	121-240	Touch-up polish inside surfaces & cleanup ext	18JAN05	28JAN05		0.00	146			-			
	121-250	Clean part per cleaning procedure	31JAN05	04FEB05		0.00	146			-			
	121-260	Final visual inspection/PPPL source witness	07FEB05	08FEB05		0.00	146			.			
	121-270	Ship Period 1 Vac Vsl to PPPL	09FEB05	15FEB05		0.00	146			-			
	Period #2												
	121-040	VV vendor phase funding 2 (1/A)	14FEB05	20JUN05	B	898,330.13	1,807			4e=833.33\$; 35=8\$;			
	121-120-3	Form Panels	09FEB05	22FEB05		0.00	146						
	121-125-3	Fabricate & pre-machine port flanges	09FEB05	08MAR05		0.00	146						
	121-130-3	Fabricate 60* periods	09MAR05	05APR05		0.00	146						

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float												
								FY03	FY04	FY05	FY06	FY07	FY08						
	121-140-3	Inspect profile	06APR05	07APR05		0.00	146												
	121-150-3	Stress relieve anneal	08APR05	11APR05		0.00	146												
	121-160-3	Sand blast smooth	12APR05	13APR05		0.00	146												
	121-170-3	Electro Polish surfaces	14APR05	22APR05		0.00	146												
	121-180-3	Weld 120* periods	25APR05	29APR05		0.00	146												
	121-190-3	Inspect Profile	02MAY05	03MAY05		0.00	146												
	121-200-3	Machine Port openings	04MAY05	10MAY05		0.00	146												
	121-210-3	Thermal cycle vessel	11MAY05	12MAY05		0.00	146												
	121-220-3	Perform vacuum test at 150C	13MAY05	16MAY05		0.00	146												
	121-230-3	Perform final dimensional inspection	17MAY05	23MAY05		0.00	146												
	121-240-3	Touch-up polish inside surfaces & cleanup ext	24MAY05	03JUN05		0.00	146												
	121-250-3	Clean part per cleaning procedure	06JUN05	10JUN05		0.00	146												
	121-260-3	Final visual inspection/PPPL source witness	13JUN05	14JUN05		0.00	146												
	121-270-3	Ship Period 2 Vac Vsl to PPPL	15JUN05	21JUN05		0.00	146												
	Period #3																		
	121-041	VV vendor phase funding 3 (1/A)	21JUN05	26OCT05	B	898,346.77	1,807												
	121-120-2	Form Panels	15JUN05	28JUN05		0.00	146												
	121-125-2	Fabricate & pre-machine port flanges	15JUN05	12JUL05		0.00	146												
	121-130-2	Fabricate 60* periods	13JUL05	09AUG05		0.00	146												
	121-140-2	Inspect profile	10AUG05	11AUG05		0.00	146												
	121-150-2	Stress relieve anneal	12AUG05	15AUG05		0.00	146												
	121-160-2	Sand blast smooth	16AUG05	17AUG05		0.00	146												
	121-170-2	Electro Polish surfaces	18AUG05	26AUG05		0.00	146												
	121-180-2	Weld 120* periods	29AUG05	02SEP05		0.00	146												
	121-190-2	Inspect Profile	05SEP05	06SEP05		0.00	146												
	121-200-2	Machine Port openings	07SEP05	13SEP05		0.00	146												
	121-210-2	Thermal cycle vessel	14SEP05	15SEP05		0.00	146												
	121-220-2	Perform vacuum test at 150C	16SEP05	19SEP05		0.00	146												
	121-230-2	Perform final dimensional inspection	20SEP05	26SEP05		0.00	146												
	121-240-2	Touch-up polish inside surfaces & cleanup ext	27SEP05	07OCT05		0.00	146												

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float												
								FY03	FY04	FY05	FY06	FY07	FY08						
	121-250-2	Clean part per cleaning procedure	10OCT05	14OCT05		0.00	146												
	121-260-2	Final visual inspection/PPPL source witness	17OCT05	18OCT05		0.00	146												
	121-270-2	Ship Perido 3 Vac Vsl to PPPL	19OCT05	25OCT05		0.00	146												
	VV Ports																		
	121-280	Ports- Fabricate Port ext subassy & NB port assy	20OCT04*	18JAN05		0.00	428												
	121-290	Inspect/clean	19JAN05	25JAN05		0.00	428												
	121-300	Ship ports to PPPL	26JAN05	01FEB05		0.00	428												
	121-031	Title III engr	03DEC03	30MAY06		256,862.14	1,653												
	122 - Vacuum Vessel Thermal Insulation																		
	122-001	Title I design WBS 122 Thermal insulation	03FEB03	02MAY03		17,897.60	146												
	122-011	Title II design WBS 122 Thermal insulation	03DEC03	18MAY04		39,211.22	275												
	122-031	Title III engr	18AUG04*	02AUG05		23,280.45	1,868												
	122-037	VV Insulation Procurement	18AUG04*	01FEB05		38,687.13	210												
	123 - Vacuum Vessel Heating and Cooling Distrib																		
	123-001	Title I design WBS 123 Htg/Cooling	24MAR03	02MAY03		12,479.36	146												
	123-011	Title II design WBS 123 Htg/Cooling	02FEB04*	30APR04		27,200.68	287												
	123-031	Title III engr	03MAY04*	21JAN05		7,384.87	2,005												
	123-037	VV Heating/Cooling Distr Procurement	03MAY04*	23JUL04		27,714.77	287												
	123-041	VV Heating/Cooling Fab/assy	26JUL04	15OCT04		67,656.72	287												
	124 - Vacuum Vessel Supports																		
	124-001	Title I design WBS 124 VV supports	03MAR03	02MAY03		17,880.19	146												
	124-011	Title II design WBS 124 VV supports	02FEB04*	30APR04		19,613.09	342												
	124-031	Title III engr	03MAY04*	17SEP04		7,747.16	2,095												
	124-037	VV Supports Procurement	03MAY04*	23JUL04		16,520.41	342												
	124-041	VV Supports Fab/assy	26JUL04	20AUG04		633.00	342												

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float						
									FY03	FY04	FY05	FY06	FY07	FY08
125 - Vacuum Vessel Local I&C														
	125-001	Title I design WBS 125 local I&C	26FEB03	02MAY03			8,940.10	146	ORNLEM =79hr ;					
	125-011	Title II design WBS 125 local I&C	02FEB04*	30APR04			9,806.54	565	ORNLEM =79hr ;					
	125-012	WBS 122-125 FDR		18MAY04			0.00	553						
	125-015	Title III design	03MAY04	26JUL04			2,228.76	2,134	ORNLEM =10hr ;					
	125-037	Procurement	03MAY04	23JUL04			4,482.56	565	41=04\$k ;					
13 - Conventional Coils														
131 - TF Coils														
	131-001	Title I design WBS 131 TF coils	03MAR03*	26SEP03			67,264.73	269	EA/DM =210hr ; EA/EM =257hr ; ORNLEM =61hr ;					
	131-002	WBS 13 and 15 concurrent PDR IB		26SEP03			0.00	404						
	131-011	Title II design WBS 131 TF coils	01OCT03*	30MAR04			70,288.04	315	EA/DM =210hr ; EA/EM =257hr ; ORNLEM =61hr ;					
	131-012	WBS 13 TF/PF/Trim coil FDR		30MAR04			0.00	714						
	131-031	Title III engr	01OCT04*	30MAR06			118,830.30	1,696	EA/EM =270hr ; ORNLEM =554hr					
	131-037	TF Coil Procurement (E/A F/B)	01OCT04*	29SEP05	B		1,141,910.74	183	41=500\$k ; 4e= \$494k; 35=02\$k ;					
132 - PF Coils														
1321 - PF1														
	141-001	Title I design WBS 1321 PF1 coils	03MAR03*	26SEP03			42,383.76	404	EA/DM =139hr ; EA/EM =155hr ; ornl=42hr					
	141-011	Title II design WBS 1321 PF1 coils	01OCT03*	30MAR04			44,313.63	510	EA/DM =139hr ; EA/EM =155hr ; ORNLEM =42hr ;					
	141-031	Title III engr	01OCT04*	30MAR06			62,615.04	1,696	EA/EM =135hr ; ORNLEM =301hr					
	141-037	PF OH Solenoid Procurement (E/A F/B)	01OCT04*	29SEP05	B		113,731.16	378	41=50\$k ; 4e=\$46 ; ; 35=02\$k ;					
1322 - PF2														
	141B-001	Title I design WBS 1322 PF2 coils	03MAR03*	26SEP03			42,383.76	404	EA/DM =139hr ; EA/EM =155hr ; ornl=42hrs					
	141B-011	Title II design WBS 1322 PF2 coils	01OCT03*	30MAR04			44,313.63	422	EA/DM =139hr ; EA/EM =155hr ; ORNLEM =42hr ;					
	141B-031	Title III engr	01OCT04*	30MAR06			62,615.04	1,696	EA/EM =135hr ; ORNLEM =301hr					
	141B-037	PF OH Solenoid Procurement (E/A F/B)	01OCT04*	29SEP05	B		113,731.16	290	41=50\$k ; 4e=\$46 ; ; 35=02\$k ;					

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float							
									FY03	FY04	FY05	FY06	FY07	FY08	
1323 - PF3															
	142-001	Title I design	WBS 1323 PF3 coils	03MAR03*	26SEP03		31,990.11	404		EA//DM =188hr ; EA//EM =64hr ; ORNLEM =29hr ;					
	142-011	Title II design	WBS 1323 PF3 coils	01OCT03*	30MAR04		33,429.35	422		EA//DM =188hr ; EA//EM =64hr ; ORNLEM =29hr ;					
	142-031	Title III engr		01OCT04*	30MAR06		37,189.08	1,696		EA//EM =68hr ; ORNLEM =194hr					
	142-037	PF 3 Procurement	(E/A F/B)	01OCT04*	29SEP05	B	185,760.76	290		41=100\$; 4e=\$56 ; 35=02\$; ;					
1324 - PF4															
	143-001	Title I design	WBS 1324 PF4 coils	03MAR03*	26SEP03		31,990.11	404		EA//DM =188hr ; EA//EM =64hr ; ORNLEM =29hr ;					
	143-011	Title II design	WBS 1324 PF4 coils	01OCT03*	30MAR04		33,429.35	422		EA//DM =188hr ; EA//EM =64hr ; ORNLEM =29hr ;					
	143-031	Title III engr		01OCT04*	30MAR06		37,189.08	1,696		EA//EM =68hr ; ORNLEM =194hr					
	143-037	PF 4 Procurement	(E/A F/B)	01OCT04*	29SEP05	B	227,147.95	290		41=100\$; 4e= \$95; ; 35=02\$; ;					
1325 - PF5															
	144-001	Title I design	WBS 1325 PF5 coils	03MAR03*	26SEP03		31,990.11	404		EA//DM =188hr ; EA//EM =64hr ; ORNLEM =29hr ;					
	144-011	Title II design	WBS 1325 PF5 coils	01OCT03*	30MAR04		33,429.35	422		EA//DM =188hr ; EA//EM =64hr ; ORNLEM =29hr ;					
	144-031	Title III engr		01OCT04*	30MAR06		37,189.08	1,696		EA//EM =68hr ; ORNLEM =194hr					
	144-037	PF 5 Procurement	(E/A F/B)	01OCT04*	29SEP05	B	192,128.02	290		41=100\$; 41=\$62; ; 35=02\$; ;					
1326 - PF6															
	145-001	Title I design	WBS 1326 PF6 coils	03MAR03*	26SEP03		31,990.11	404		EA//DM =188hr ; EA//EM =64hr ; ORNLEM =29hr ;					
	145-011	Title II design	WBS 1326 PF6 coils	01OCT03*	30MAR04		33,429.35	422		EA//DM =188hr ; EA//EM =64hr ; ORNLEM =29hr ;					
	145-031	Title III engr		01OCT04*	30MAR06		37,189.08	1,696		EA//EM =68hr ; ORNLEM =194hr					
	145-037	PF 6 Procurement	(E/A F/B)	01OCT04*	29SEP05	B	145,434.78	290		\$41=100\$; 4e = \$18 ; 35=02\$; ;					
133 - External Trim Coils															
	184-001	Title I design	WBS 133 Ext trim coils	03MAR03*	26SEP03		28,626.60	404		ea//dm=133;ea//em=100					
	184-011	Title II design	WBS 133 Ext trim coils	01OCT03*	30MAR04		29,744.63	712		ea//dm=133; ea//em=100					
	184-015	Title III design		03OCT05*	26DEC05		8,954.78	1,764		ea//dm=38; ea//em=28					
	184-037	External Trim Coil Procurement/Fab		03OCT05*	23DEC05		220,579.48	319		41=56.80k ; em//sm=1,299					

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float							
									FY03	FY04	FY05	FY06	FY07	FY08	
134 - Conventional Coil Local I&C															
1341 - TF Coil Local I&C															
	133-001	Title I design WBS 1341 TF I&C	05MAY03	09JUL03			9,436.77	461	ORNLEM =84hr ;						
	133-011	Title II design WBS 1341 TF I&C	01OCT03*	30MAR04			10,351.35	627	ORNLEM =84hr ;						
	133-037	TF I&C Procurement	01OCT04*	23DEC04			6,854.19	495	41=06\$;						
1342 - PF Coil Local I&C															
	147-001	Title I design WBS 1342 pf I&C	05MAY03	09JUL03			7,944.49	461	ORNLEM =70hr ;						
	147-011	Title II design WBS 1342 pf I&C	01OCT03*	30MAR04			8,714.45	714	ORNLEM =70hr ;						
	147-037	PF Local I&C Procurement	01OCT04*	23DEC04			4,569.46	582	41=04\$;						
14 - Modular Coils															
141 - Modular Coil Winding Form															
	172-001	Title I design WBS 141 Mod coil winding form	01OCT02*	02MAY03			157,391.44	146	EA/EM =60hr ; ORNLEM =1313hr ;						
	172-011	Title II design WBS 141 Mod coil winding form	05MAY03	16OCT03			156,824.42	360	EA/EM =60hr ; ORNLEM =1295hr ;						
	172-012	WBS 14 Modular Coil FDR		16OCT03			0.00	805							
	172-031	Title III engr	16JAN04	31MAR05			327,841.80	381	EA/EM =688hr ; ORNLEM =1,710hr ;						
	172-037	Procurement vendor cost (A/A 1/C)	16JAN04	31MAR05	B		4,436,223.25	381	41=500\$; 4E=3,600 ; 35=48\$;						
Castings															
	C-00	Issue RFP for 2 R&D Vendors	24SEP02*				0.00	394							
	C-000	Castings-RFP for Vendor R&D	24SEP02	13DEC02			0.00	394							
	C-001	Castings-Contract for Vendor R&D Placed	16DEC02				0.00	394							
	C-021	Castings-R&D casting tooling preparation type BA	16DEC02	25APR03			142,652.44	394	ea/em=185; ornl=1013						
	C-041	Fab 1 Both Vendors Deliver Casting (E/A F/B)	28APR03	29AUG03	B		1,343,396.56	394	ea/em=43; ornl=237; 41=500k 4E = 700K						
	C-061	Castings-R&D Casting Received at PPPL		29AUG03			0.00	394							
	C-071	Evaluate R&D casing and cost proposal	17OCT03	15JAN04			0.00	360							
	C-081	Castings-Contract for Mfg. Placed with 1 vendor	16JAN04				0.00	360							
Type 1															
	C-121	Castings-BA-1-1	16JAN04	08APR04			0.00	360							
	C-181	Castings-BA-4-1	09APR04	29APR04			0.00	366							

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	C-261	Castings-BA-7-2	30APR04	20MAY04		0.00	366			-			
	C-321	Castings-BA-10-2	21MAY04	10JUN04		0.00	366			-			
	C-401	Castings-BA-13-3	11JUN04	01JUL04		0.00	366			-			
	C-461	Castings-BA-16-3	02JUL04	22JUL04		0.00	366			-			
	Type 2												
	C-101	Castings-Production casting tooling prep type MI	16JAN04	15APR04		0.00	436						
	C-141	Castings-MI-2-1	23JUL04	12AUG04		0.00	366			-			
	C-201	Castings-MI-5-1	13AUG04	02SEP04		0.00	366			-			
	C-281	Castings-MI-8-2	03SEP04	23SEP04		0.00	366			-			
	C-341	Castings-MI-11-2	24SEP04	14OCT04		0.00	366			-			
	C-421	Castings-MI-14-3	15OCT04	04NOV04		0.00	366			-			
	C-481	Castings-MI-17-3	05NOV04	25NOV04		0.00	377			-			
	Type 3												
	C-102	Castings-Production casting tooling prep type BU	16APR04	15JUL04		0.00	472						
	C-161B	Castings-BU-3-1	26NOV04	16DEC04		0.00	377						
	C-221B	Castings-BU-6-1	17DEC04	06JAN05		0.00	377						
	C-301B	Castings-BU-9-2	07JAN05	27JAN05		0.00	377						
	C-361B	Castings-BU-12-2	28JAN05	17FEB05		0.00	377						
	C-441B	Castings-BU-15-3	18FEB05	10MAR05		0.00	377						
	C-501B	Castings-BU-18-3	11MAR05	31MAR05		0.00	381						
	142 - Modular Coil Windings and Assembly												
	Period 1												
	Type 1												
	P1-001	Receive casting BA-1-1	09APR04	15APR04		0.00	360			.			
	P1-011	Wind coil BA-1-1	01OCT04	17NOV04		0.00	240			-			
	P1-021	VPI & Ship BA-1-1	18NOV04	08DEC04		0.00	240			-			
	P1-091	Receive casting BA-4-1	30APR04	06MAY04		0.00	366			.			
	P1-101	Wind coil BA-4-1	01OCT04	09NOV04		0.00	261			-			
	P1-111	VPI & Ship BA-4-1	09DEC04	29DEC04		0.00	240			-			
	Type 2												
	P1-031	Receive casting MI-2-1	13AUG04	19AUG04		0.00	366			.			

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	P1-041	Wind coil MI-2-1	25JAN05	03MAR05		0.00	254						
	P1-051	VPI & Ship MI-2-1	24MAR05	13APR05		0.00	240						
	P1-121	Receive casting MI-5-1	03SEP04	09SEP04		0.00	366			.			
	P1-131	Wind coil MI-5-1	27JAN05	07MAR05		0.00	267			 -			
	P1-141	VPI & Ship MI-5-1	14APR05	04MAY05		0.00	240			 -			
	Type 3												
	P1-061	Receive casting BU-3-1	17DEC04	23DEC04		0.00	377			.			
	P1-071	Wind coil BU-3-1	23MAY05	29JUN05		0.00	271			- 			
	P1-081	VPI & Ship BU-3-1	28JUL05	17AUG05		0.00	251			- 			
	P1-151	Receive casting BU-6-1	07JAN05	13JAN05		0.00	381			.			
	P1-161	Wind coil BU-6-1	25MAY05	27JUN05		0.00	288			- 			
	P1-171	VPI & Ship BU-6-1	18AUG05	07SEP05		0.00	251			- 			
	Period 2												
	Type 1												
	P2-001	Receive casting BA-7-2	21MAY04	27MAY04		0.00	370			.			
	P2-011	Wind coil BA-7-2	18NOV04	21DEC04		0.00	246			 -			
	P2-021	VPI & Ship BA-7-2	30DEC04	19JAN05		0.00	240			 -			
	P2-091	Receive casting BA-10-2	11JUN04	17JUN04		0.00	366			.			
	P2-101	Wind coil BA-10-2	10NOV04	17DEC04		0.00	263			 -			
	P2-111	VPI & Ship BA-10-2	20JAN05	09FEB05		0.00	240			 -			
	Type 2												
	P2-031	Receive casting MI-8-2	24SEP04	30SEP04		0.00	366			.			
	P2-041	Wind coil MI-8-2	04MAR05	12APR05		0.00	256			 -			
	P2-051	VPI & Ship MI-8-2	05MAY05	25MAY05		0.00	240			 -			
	P2-121	Receive casting MI-11-2	15OCT04	21OCT04		0.00	366			.			
	P2-131	Wind coil MI-11-2	08MAR05	14APR05		0.00	269			 -			
	P2-141	VPI & Ship MI-11-2	26MAY05	15JUN05		0.00	240			 -			
	Type 3												
	P2-061	Receive casting BU-9-2	28JAN05	03FEB05		0.00	377			.			
	P2-071	Wind coil BU-9-2	30JUN05	08AUG05		0.00	273						
	P2-081	VPI & Ship BU-9-2	08SEP05	28SEP05		0.00	251			- 			

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	P2-151	Receive casting BU-12-2	18FEB05	24FEB05		0.00	381				.		
	P2-161	Wind coil BU-12-2	28JUN05	29JUL05		0.00	294				-		
	P2-171	VPI & Ship BU-12-2	29SEP05	19OCT05		0.00	251				-		
Period 3													
Type 1													
	P3-001	Receive casting BA-13-3	02JUL04	08JUL04		0.00	370			.			
	P3-011	Wind coil BA-13-3	22DEC04	24JAN05		0.00	252				-		
	P3-021	VPI & ship BA-13-3	10FEB05	02MAR05		0.00	240				-		
	P3-091	Receive casting BA-16-3	23JUL04	29JUL04		0.00	366			.			
	P3-101	Wind coil BA-16-3	20DEC04	26JAN05		0.00	265				-		
	P3-111	VPI & ship BA-16-3	03MAR05	23MAR05		0.00	240				-		
Type 2													
	P3-031	Receive casting MI-14-3	05NOV04	11NOV04		0.00	366			.			
	P3-041	Wind coil MI-14-3	13APR05	20MAY05		0.00	258				-		
	P3-051	VPI & ship MI-14-3	16JUN05	06JUL05		0.00	240				-		
	P3-121	Receive casting MI-17-3	26NOV04	02DEC04		0.00	377				.		
	P3-131	Wind coil MI-17-3	15APR05	24MAY05		0.00	282				-		
	P3-141	VPI & ship MI-17-3	07JUL05	27JUL05		0.00	251				-		
Type 3													
	P3-061	Receive casting BU-15-3	11MAR05	17MAR05		0.00	377				.		
	P3-071	Wind coil BU-15-3	09AUG05	15SEP05		0.00	275				-		
	P3-081	VPI & ship BU-15-3	20OCT05	09NOV05		0.00	251				-		
	P3-151	Receive casting BU-18-3	01APR05	07APR05		0.00	381				.		
	P3-161	Wind coil BU-18-3	01AUG05	01SEP05		0.00	300				-		
	P3-171	VPI & ship BU-18-3	10NOV05	30NOV05		0.00	251				-		
	171-001	Title I design WBS 142 Mod coil winding/assy	01OCT02*	30APR03		444,414.25	148						
	171-011	Title II design WBS 142 Mod coil winding/assy	01MAY03	30SEP03		438,666.87	240						
	171-021	In-house R&D (1/A)	01OCT02*	30SEP03	B	2,349,804.86	240						

EA/EM =60hr ; ORNLEM =3621hr ;
 ORNLRM =161hr ;
 EA/EM =60hr ; ORNLEM =3573hr ;
 ORNLRM =159hr ;
 EA/DM =1726hr ; EA/EM =2589hr ;
 EM/SM =5683hr ; EM/TB =8592hr ;
 ORNLEM =835hr ; 41=\$393k

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	171-031	Title III engr	01OCT03*	14MAR06		1,321,647.77	1,708				EA/DM =1,000hr ; EA/EM =5447hr ; ORNLEM =2524hr ;		
	171-037	Procurements (E/A F/B)	01OCT03	30SEP04	B	1,820,806.64	240			41=500\$; 4E = 1,111 ; 35=36\$;			
	171-041	Modular Coil Winding (18 coils)	01OCT04	30NOV05		2,966,171.26	251				EM/SM =10,051hr ; EM/TB =23,192hr		
143 - Modular Coil Local I&C													
	174-001	Title I design WBS 143 Mod coil local I&C	26FEB03	02MAY03		10,926.78	146				ORNLEM =97hr ;		
	174-011	Title II design WBS 143 Mod coil local I&C	01SEP03*	10OCT03		11,209.18	809				ORNLEM =97hr ;		
	174-015	Title III design	13OCT03	05JAN04		3,219.32	2,279				ORNLEM =26hr ;		
	174-037	Mod Coil Cooling System Procurement	13OCT03	02JAN04		6,170.56	809				41=04\$; em/sm=16		
15 - Structures													
151 - Coil Support Structure													
	162-001	Title I design WBS 151 coil sprt structure	03MAR03*	26SEP03		184,127.92	404				EA/DM =511hr ; EA/EM =283hr ; ORNLEM =794hr ;		
	162-011	Title II design WBS 151 coil sprt structure	29SEP03	25FEB04		196,275.43	412				EA/DM =511hr ; EA/EM =283hr ; ORNLEM =794hr ;		
	162-012	WBS 15 FDR		25FEB04		0.00	731						
	162-031	Title III engr	05AUG04*	01FEB06		160,002.55	1,737				EA/EM =270hr ; ORNLEM =874hr		
	162-037	Coil Support Assy Procurement (E/A F/B)	01OCT04*	29SEP05	B	1,146,902.42	256				41=500\$; 4E = 502 ; 35=00\$;		
153 - Support Structure Local I&C													
	163-001	Title I design WBS 153 sprt struct local I&C	03MAR03*	26SEP03		7,450.08	404				ORNLEM =66hr ;		
	163-011	Title II design WBS 153 sprt struct local I&C	29SEP03	07NOV03		8,123.98	809				ORNLEM =66hr ;		
	163-015	Title III design	10NOV03	27JAN04		3,466.96	2,263				ORNLEM =28hr ;		
	163-037	Support Structure I&C Procurement/Fab	10NOV03	30JAN04		5,326.56	809				41=04\$; em/sm=8		
16 - Coil Services													
161 - LN2 Distribution													
1611 - LN2 Manifolds & Piping													
	191-001	Title I design WBS 1611 LN2 manifolds&piping	01OCT03*	30DEC03		23,743.53	448				EA/EM =40hr ; ORNLEM =140hr ;		
	191-011	Title II design WBS 1611 LN2 manifolds&piping	31DEC03	23MAR04		47,487.06	697				EA/EM =80hr ; ORNLEM =281hr ;		

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NCSX
FY03 Schedule Guidance

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	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	191-031	Title III engr	01OCT04*	23JUN05		8,912.28	1,896			EA/EM =08hr ; ORNLEM =58hr ;			
	191-037	Procurement	01OCT04*	30DEC04		10,244.44	560			41=08\$;			
	191-041	LN2 Manifolds & ppg Fab/assy	31DEC04	27JAN05		30,488.11	560			EM//SM =71hr ; EM//TB =284hr ;			
1612 - LN2 Flow Control Fab Assy													
	192-001	Title I design WBS 1612 LN2 flow control assy	01OCT03*	30DEC03		10,878.75	676		EA/EM =15hr ; ORNLEM =69hr ;				
	192-011	Title II design WBS 1612 LN2 flow control assy	31DEC03	24FEB04		10,878.75	676		EA/EM =15hr ; ORNLEM =69hr ;				
	192-031	Title III engr	01OCT04*	14APR05		7,144.86	1,946			EA/EM =20hr ; ORNLEM =22hr ;			
	192-037	Procurement	01OCT04*	25FEB05		36,359.16	519			41=30\$;			
	192-041	LN2 Flow control Fab/assy	28FEB05	25MAR05		2,180.20	519			EM//SM =20hr ;			
1613 - LN2 Local I&C													
	193-001	Title I design WBS 1613 LN2 local I&C	01OCT03*	30DEC03		3,268.85	762		ORNLEM =26hr ;				
	193-011	Title II design WBS 1613 LN2 local I&C	31DEC03	10FEB04		3,268.85	762		ORNLEM =26hr ;				
	193-012	WBS 161 FDR		23MAR04		0.00	732						
	193-031	Title III engr	01OCT04*	24FEB05		2,624.60	1,981			ORNLEM =20hr ;			
	193-037	LN2 local I&C Procurement/Fab	01OCT04*	23DEC04		3,451.62	595			41=02\$; em//sm=8			
162 - Electrical Leads													
1621 - TF Leads													
	132-001	Title I design WBS 1621 TF leads	01OCT03*	30DEC03		23,699.15	424		ORNLEM =191hr ;				
	132-011	Title II design WBS 1621 TF leads	31DEC03	04FEB04		23,649.62	424		ORNLEM =191hr ;				
	132-015	Title III design tf leads	01OCT04*	20DEC04		4,724.28	2,029			ORNLEM =36]hr ;			
	132-037	TF Leads Procurement	01OCT04*	23DEC04		59,329.31	253			41=48\$;			
1622 - PF Leads													
	146-001	Title I design WBS 1622 pf leads	01OCT03*	30DEC03		34,785.10	742		ORNLEM =253hr ; ORNLRM =20hr ;				
	146-011	Title II design WBS 1622 pf leads	31DEC03	10FEB04		34,785.10	742		ORNLEM =253hr ; ORNLRM =20hr ;				
	146-037	PF leads Procurement	01OCT04*	23DEC04		38,324.52	575			41=31\$;			
1623 - Modular Coil Leads													
	173-001	Title I design WBS 1623 mod coil leads	01OCT03*	30DEC03		23,699.15	762		ORNLEM =191hr ;				

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	173-011	Title II design WBS 1623 mod coil leads	31DEC03	10FEB04		23,699.15	762		■ ORNLEM =191hr ;				
	173-015	Title III design mod coil leads	11FEB04*	05MAY04		5,324.26	2,192		■ ORNLEM =43hr ;				
	173-037	Modular Coil Leads Procurement/Fab	01OCT04*	23DEC04		81,054.52	595		— ■ 41=48\$;em//sm=202				
17 - Cryostat and Base Support Structure													
171 -Cryostat													
1711 - Cryostat Shell and Structure													
	151-001	Title I design WBS 1711 cryostat shell & struct	01OCT03*	03MAR04		30,849.66	156	— ■ EA/EM =20hr ; ORNLEM =223hr ;					
	151-002	Balance of machine core concurrent PDR IC		03MAR04		0.00	402	▼					
	151-011	Title II design WBS 1711 cryostat shell & struct	04MAR04	02NOV04		62,163.80	402	— ■ EA/EM =40hr ; ORNLEM =447hr ;					
	151-012	Title II design WBS 1711 cryostat shell & struct		11NOV04		0.00	595	■					
	151-031	Title III engr	12JUL05*	26JUN06		19,659.78	1,634		■ EA/EM =34hr ; ORNLEM =102				
	151-037	Cryostat Procurement (1/A)	12JUL05*	26DEC05	B	134,021.00	223		■ 41=106\$; 35=02\$;				
1712 - Cryostat Thermal Insulation													
	152-001	Title I design WBS 1712 Cryostat therm insulatio	01OCT03*	03MAR04		5,975.48	402	■ EA/EM =15hr ; ORNLEM =29hr ;					
	152-011	Title II design WBS 1712 Cryostat therm insulati	01OCT04*	28OCT04		6,269.72	605	■ EA/EM =15hr ; ORNLEM =29hr ;					
	152-031	Title III engr	29OCT04	25NOV04		7,122.16	2,046	■ EA/EM =41hr ; ORNLEM =03hr ;					
	152-037	Cryo Thermal Insulation Procurement	29OCT04	11NOV04		30,718.24	605	■ 41=22\$; 35=02\$;					
	152-041	Cryostat insulation Fab/assy	12NOV04	25NOV04		4,360.40	605	■ EM//SM =40hr ;					
1713 - Cryostat/Vacuum Vessel Boots													
	153-001	Title I design WBS 1713 cryostat/vac vsl boots	01OCT03*	03MAR04		20,957.70	402	■ EA/EM =15hr ; ORNLEM =150hr ;					
	153-011	Title II design WBS 1713 cryostat/vac vsl boots	01OCT04*	28OCT04		22,148.55	605	■ EA/EM =15hr ; ORNLEM =150hr ;					
	153-031	Title III engr	29OCT04	25NOV04		7,122.16	2,046	■ EA/EM =41hr ; ORNLEM =03hr ;					
	153-037	VV/Cryostat Boots Procurement	29OCT04	11NOV04		66,330.90	605	■ 41=54\$;					
	153-041	Cryostat/VV boots Fab/assy	12NOV04	25NOV04		4,360.40	605	■ EM//SM =40hr ;					
1714 - Cryostat Temperature Control/Heating													
	154-001	Title I design WBS 1714 cryostat temp control	01OCT03*	03MAR04		11,423.56	402	■ EA/EM =15hr ; ORNLEM =73hr ;					
	154-011	Title II design WBS 1714 cryostat temp control	01OCT04*	01NOV04		12,043.84	583	■ EA/EM =15hr ; ORNLEM =73hr ;					
	154-031	Title III engr	02NOV04	10JAN05		4,006.70	2,014	■ EA/EM =18hr ; ORNLEM =08hr ;					

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	154-037	Procurement	02NOV04	27DEC04		33,165.45	583			41=27\$;			
	154-041	Cryo Temp Cntrl/Heatering Fab/assy	28DEC04	10JAN05		1,744.16	583			EM//SM =16hr ;			
	1715 - Cryostat Local I&C												
	155-001	Title I design WBS 1715 cryostat local I&C	01OCT03*	03MAR04		10,351.35	402		ORNLEM =84hr ;				
	155-011	Title II design WBS 1715 cryostat local I&C	01OCT04*	11NOV04		10,970.83	565		ORNLEM =84hr ;				
	155-037	Cryo Local I&C Procurement	12NOV04	03FEB05		2,321.58	565		41=02\$;				
	172 - Base Support Structure												
	161-001	Title I design WBS 172 base support struct	29SEP03	01MAR04		48,732.63	404		EA//DM =120hr ; EA//EM =76hr ; ORNLEM =196hr ;				
	161-011	Title II design WBS 172 base support struct	02MAR04	03JUN04		48,787.84	425		EA//DM =120hr ; EA//EM =76hr ; ORNLEM =196hr ;				
	161-031	Title III engr	01OCT04*	28APR05		42,926.16	1,936		EA//EM =60hr ; ORNLEM =252hr ;				
	161-037	Machine Base&supports Procurement	01OCT04*	03FEB05		296,336.64	340		41=238\$; 35=02\$;				
	18 - Field Period Assembly												
	181 - Field Period Assembly Planning/Oversight												
	1811 - Planning Prior to Field Period Assmby												
	711.010	LOE FY03	01OCT02*	30SEP03		39,165.00	2,348		ea/em=125;ea/dm=200				
	711.020	LOE FY04	01OCT03*	30SEP04		30,283.50	2,086		ea/em=125;ea/dm=100				
	711.030	LOE FY05	01OCT04*	30SEP05		103,651.00	1,825		ea/em=500;ea/dm=200				
	711.040	LOE FY06	03OCT05*	02OCT06		22,178.90	1,564		ea/dm=200				
	1812 - Oversight of Field Period Assembly												
	714A.020	LOE FY06	03OCT05*	02OCT06		341,490.13	1,564		em//em=1726;em//sm=432				
	182 - TFTR Test Cell Area preparations												
	611B.001	Preliminary Design	01APR03*	31JUL03		7,075.00	306		ea/dm=40; em//em=20;				
	611B.005	Final Design	01AUG03	23MAR04		7,280.66	306		ea/dm=40; em//em=20;				
	611B.010	Lab Fab/Assy/Installation	24MAR04	23MAR05		29,995.77	306		em//sm=40; em//tb=240;41=5.6k				
	721.010	Area preparations	01OCT04*	20DEC04		92,593.44	373		em//sm=144; em//tb=960				

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float							
									FY03	FY04	FY05	FY06	FY07	FY08	
	183 - Receive,Inspect, and Test Coils														
		722.010	Receive/Inspect TF & Mod Coils	01JUN04*	01JUN06		38,952.37	1,651							
	184 - Receive, Inspect, and Test VV														
		724.010	Receive/Inspect VV	09FEB05	26OCT05		51,682.37	1,807							
	185 - Assemble Field Periods														
	P1-176	Field Period assembly Prelim Design	30MAY03*	03MAR04		0.00	319								
	P1-178	Field Period assembly Final Design	04MAR04	01SEP04		0.00	319								
	P1-179	Field Period assembly FDR		01SEP04		0.00	319								
Period #1															
	P1-180	Attach cooling tubes & Insul to VV 1st Period	16FEB05	08MAR05		0.00	200								
	P1-181	Assemble 1st. Field Period - coils/VV	01APR05	10JAN06		0.00	183								
	P1-191	Position and weld port assemblies	11JAN06	31JAN06		0.00	183								
	P1-201	Bakeout vessel segment to 150 degrees C	01FEB06	07FEB06		0.00	183								
	P1-211	Perform vacuum leak check of welded assemblies	08FEB06	21FEB06		0.00	183								
	P1-221	Prepare field period for shipment	22FEB06	28FEB06		0.00	183								
	P1-231	Ship 1st. Field period	01MAR06	03MAR06		0.00	183								
	P1-241	Field period 1 ready for installation	06MAR06	06MAR06		0.00	183								
Period #2															
	P2-180	Attach cooling tubes & Insul to VV 2nd Period	22JUN05	12JUL05		0.00	174								
	P2-181	Assemble 2nd. Field Period- coils/ VV	13JUL05	20FEB06		0.00	174								
	P2-191	Position and weld port assemblies	21FEB06	13MAR06		0.00	174								
	P2-201	Bakeout vessel segment to 150 degrees C	14MAR06	20MAR06		0.00	174								
	P2-211	Perform vacuum leak check of welded assemblies	21MAR06	03APR06		0.00	174								
	P2-221	Prepare field period for shipment	04APR06	10APR06		0.00	174								
	P2-231	Ship 2nd. Field period	11APR06	13APR06		0.00	174								
	P2-241	Field Period 2 ready for installation	14APR06	14APR06		0.00	174								

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08		
Period #3																
	P3-180	Attach cooling tubes & Insul to VV 3rd Period	26OCT05	15NOV05			0.00	146								
	P3-181	Assemble 3rd. Field Period - coils/ VV	16NOV05	26APR06			0.00	146								
	P3-191	Position and weld port assemblies	27APR06	17MAY06			0.00	146								
	P3-201	Bakeout vessel segment to 150 degrees C	18MAY06	25MAY06			0.00	146								
	P3-211	Perform vacuum leak check of welded assemblies	26MAY06	08JUN06			0.00	146								
	P3-221	Prepare field period for shipment	09JUN06	15JUN06			0.00	146								
	P3-231	Ship 3rd. Field Period	16JUN06	20JUN06			0.00	146								
	P3-241	3rd. Period ready for installation	21JUN06	21JUN06			0.00	146								
	725.001	Assemble Field Period #1 (summary task)	01APR05	06MAR06			259,703.17	183				em//sm=768; em//tb=2152				
	725.101	Assemble Field Period #2 (summary task)	13JUL05	13APR06			226,548.18	174				em//sm=688; em//tb=1832				
	725.201	Assemble Field Period #3 (summary task)	16NOV05	20JUN06			228,553.60	146				em//sm=688; em//tb=1832				
186 - Tooling Design and Fabrication																
	713A.010	Final Design Tooling	01OCT03*	01JUN04			172,949.20	1,565		em//em=432;ea//dm=1000						
	713A.020	Lab Fab/Assy/Installation	02JUN04	31JAN05			145,990.20	1,999		em//em=30;em//sm=390;em//tb=1260						
	713A.030	Tooling,assy fixtures,misc equipt	02JUN04	29SEP06			277,540.67	1,565		41=\$220k						
	713A.040	General procurements	02JUN04	29SEP06			18,923.23	1,565		41=\$15k						
	713A.050	Welding tools, materials & equipt	02JUN04	29SEP06			50,461.94	1,565		41=\$40k						
187 - Measurement Systems																
	740.010	Final Design Measurement systems	01OCT03*	01JUN04			80,669.92	226		em//em=224;ea//dm=432						
	740.020	Lab Fab/Assy/Installation	02JUN04	31JAN05			48,684.80	226		em//sm=160;em//tb=400						
	740.030	Procured Hardware/Material	02JUN04	31JAN05			30,416.75	226		41=\$25k						

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
2 - Plasma Heating, Fueling & Vac Systems													
21 - Fueling Systems													
211 - Gas Fueling Systems													
	211-001	Prelim Design	01OCT02*	30SEP03		1,533.50	1,435						
	211-005	Final Design	01OCT03	30SEP05		6,480.00	1,435						
	211-010	Design Gas Handling HW	03JAN05*	02JAN06		4,394.29	1,369						
	211-015	Design PLC Controls	03JAN05*	02JAN06		26,593.13	1,369						
	211-020	Design support during Installation (Title III)	03OCT05	30MAR07		5,109.60	1,435						
	211-025	Install Gas Handling HW	03JAN06*	01JAN07		83,414.75	1,369						
	211-030	Install PLC	03JAN06*	01JAN07		9,090.97	1,369						
	211-035	Integr System Test	02JAN07*	02JUL07		9,124.00	1,369						
22 - Torus Vacuum Pumping Systems													
220 - Torus Vacuum Pumping System													
	220-001	Prelim Design	01OCT02*	30SEP03		6,134.00	215						
	220-010	Final Design	01OCT03	30SEP04		15,935.00	215						
	220-013	PLC Design & Drafting for Pumping Sys	03JAN05*	02JAN06		61,477.59	149						
	220-015	Title III Design support	03JAN05*	02JUL07		121,106.38	1,369						
	220-020	Maint/Repair mech pumping sys	03JAN05*	02JAN06		8,788.57	149						
	220-025	Electr/Mech Fab & Installation	03JAN06	28JUL06		67,726.40	149						
	220-030	Integr System Test	31JUL06	26SEP06		27,155.20	1,568						
23 - Wall Conditioning Systems													
231 - Glow Discharge Cleaning System													
	231-001	Prelim Design	01OCT02*	30SEP03		4,600.50	1,697						
	231-010	Final Design	01OCT04*	30SEP05		21,411.76	1,435						
	231-015	Design/Fab Pwr Supplies & PLC cntrl's	03OCT05	29SEP06		48,051.92	1,565						
	231-020	Title III Design	03OCT05	30MAR07		1,703.20	1,435						

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	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	231-025	Install Cables	03OCT05	29SEP06		17,606.10	1,435					EE//SM =80hr ; 41=07\$	
	231-030	Integr Systems test	02OCT06	30MAR07		11,442.40	1,435		EM//EM =40hr ; EE//SM =40hr ;				
25 - Neutral Beam Injection System													
251 - NB Systems Recommissioning													
	250-0201	Clean, hi-pot and test Accel rectifier	01OCT02*	30SEP03		32,771.20	2,348		EE//SM =320hr ;				
	250-0301	AC Power maint. Pole Transformers	01OCT02*	30SEP03		16,385.60	2,348		EE//SM =160hr ;				
	250-0401	Accel Rectifier Electronics startup	01OCT02*	30SEP03		65,542.40	2,348		EE//SM =640hr ;				
	250-0501	Rehab Mods, Crowbars, Fault Detectors	01OCT02*	30SEP03		68,226.00	2,348		EE//SM =200hr ; EE//EM =320hr ;				
	250-0601	Drafting: Refurbishment	01OCT03*	30MAR07		224,985.60	1,435				EA//DM =2,080hr ;		
	250-0701	Repair water leak in East source	01OCT04*	30SEP05		4,360.40	1,825			EM//SM =40hr ;			
	250-0801	Fabricate and install all new filaments	03OCT05*	02OCT06		4,494.58	1,564				EM//SM =40hr ;		
	250-0901	Replace calorimeter bearings and cables	01OCT04*	30SEP05		17,441.60	1,825			EM//SM =160hr ;			
	250-1001	Maint. and reinstall cryogenic transfer sys	01OCT04*	30SEP05		8,720.80	1,825			EM//SM =80hr ;			
	250-1201	Maintenance and repair of vacuum sys	01OCT04*	30SEP05		4,398.00	1,825			EE//SM =40hr ;			
	250-1301	Water system maintenance and calib.	01OCT04*	30SEP05		8,796.00	1,825			EE//SM =80hr ;			
	250-1401	Maint. & calib. of Auxiliary Pwr Supplies	01OCT04*	30SEP05		4,398.00	1,825			EE//SM =40hr ;			
	250-1501	Upgrade,maint,calib telemetry,optical links&cntr	01OCT04*	30SEP05		17,592.00	1,825			EE//SM =160hr ;			
	250-1601	Design PLC& perform oper test& calibr of PLC	01OCT04*	30SEP05		140,736.00	1,825			EE//SM =1,280hr ;			
	250-1701	Fabr, install, test Main & Front Box N2 Cryopane	01OCT04*	30SEP05		148,253.60	1,825			EM//SM =1,360hr ;			
	250-1801	Subsystem integrated testing	02OCT06*	30MAR07		2,061.72	1,435				EE//SM =18hr ;		
	250-2101	Prelim Design-Sys Eng & Work Planning: Refurbish	01OCT02*	30SEP03		11,936.00	2,348		EE//EM =80hr ;				
	250-2111	Final Design-Sys Eng & Work Planning: Refurbishm	01OCT03*	30SEP05		37,826.41	1,825			EE//EM =240hr ;			
	250-2121	Fab/Install-Sys Eng & Work Planning: Refurbishme	03OCT05*	30MAR07		26,513.07	1,435				EE//EM =160hr ;		
	250-2131	Sys Eng & Work Planning Procedures	03OCT05*	02OCT06		13,210.14	1,564				EE//EM =80hr ;		
	250-3201	EAD analysis: platform support capability	01OCT02*	30SEP03		3,060.00	2,348		EA//EM =20hr ;				
	250-7001	M&S during Refurbishment	01OCT03*	30SEP05		357,694.41	1,825				41=294\$		
	250-7002	M&S support services during refurbishment	01OCT03*	30SEP05		31,997.83	1,825				41=26.3\$		

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float												
									FY03	FY04	FY05	FY06	FY07	FY08						
	252 - NB Installation & Test																			
	250-3101	Prelim Dsn -Sys Eng &Work Planning: Installation	01OCT02*	30SEP03			11,936.00	1,435												
	250-3111	Final Dsn-Sys Eng &Work Planning: Installation	01OCT03*	30SEP05			37,826.41	1,435												
	250-3121	Fab/Install-Sys Eng &Work Planning: Installation	03OCT05*	30MAR07			13,256.53	1,435												
	250-3301	Fab BL alignment measurement fixt, obtain BL bas	03OCT05*	02OCT06			906.68	1,564												
	250-3401	Fab bellows/elec break section of transition duc	03OCT05*	02OCT06			8,989.17	1,564												
	250-3501	Perform alignment measurements	03OCT05*	02OCT06			906.68	1,564												
	250-3601	Carpenter prep platform for base plate	03OCT05*	02OCT06			1,797.83	1,564												
	250-3701	Relocate base plate to NCSX location	03OCT05*	02OCT06			7,253.42	1,564												
	250-3801	Lift NB from Refurb Location to NCSX	03OCT05*	02OCT06			5,440.06	1,564												
	250-3901	Enclose platform around base plate	03OCT05*	02OCT06			3,595.67	1,564												
	250-4001	Engineer new Junction Box	03OCT05*	02OCT06			26,420.28	1,564												
	250-4101	Fabricate and Install new Junction Box	03OCT05*	02OCT06			18,133.54	1,564												
	250-4201	Hi-potting cable run and fixing problems	03OCT05*	02OCT06			9,066.77	1,564												
	250-4301	Install Cable Trays	03OCT05*	02OCT06			36,267.08	1,564												
	250-4401	Pulling heavy cables from Arc Room to Junction B	03OCT05*	02OCT06			72,534.17	1,564												
	250-4501	Install welding cables Junction Box to Ion Sourc	03OCT05*	29SEP06			9,066.40	1,565												
	250-4601	Connect BL to new foreline/exhaust manifold.	03OCT05*	29SEP06			3,595.52	1,565												
	250-4701	New PLC:Test with Vacuum system	03OCT05*	29SEP06			3,626.56	1,565												
	250-4801	New Cryolines: Connect beamlines	03OCT05*	29SEP06			3,626.56	1,565												
	250-4901	Crogenic Sys Controls: connect & test	03OCT05*	29SEP06			3,626.56	1,565												
	250-5001	Pneumatic Air Sys :connect beamlines	03OCT05*	29SEP06			1,813.28	1,565												
	250-5101	Water System	03OCT05*	29SEP06			26,966.40	1,565												
	250-5201	Fab & Install Water cooled aperture	03OCT05*	29SEP06			13,599.60	1,565												
	250-5301	New PLC: Test Water system controls	03OCT05*	29SEP06			1,813.28	1,565												
	250-5401	Install NB Diagnostic Control System	03OCT05*	30MAR07			1,819.73	1,435												
	250-5601	Drafting: Installation	01OCT03*	30MAR07			51,919.75	1,435												
250-7003	M&S during installation	03OCT05*	02OCT06			28,644.92	1,564													

					Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
3 - Diagnostics													
31 - Magnetic Diagnostics													
	310-001	Preliminary Design wbs 114 mag diag	03MAR03*	30SEP04		35,432.71	287				R///RM2 =160hr ; EE//EM =80hr ;		
	310-010	Final Design wbs 114 mag diag	01OCT04	27APR05		207,880.80	287				R///RM2 =220hr ; EE//EM =560hr ; EM//EM =200hr ; EA//DM =360hr ; EM//SM =120hr ;		
	310-015	Fab/Assembly/Installation	03OCT05*	08JUN06		380,960.40	175	EE//EM =340hr ; EM//EM =180hr ; EE//SM =2,200hr ; EM//SM =400hr ;					
	310-020	Fabricate Integrator Modules	03OCT05*	31MAR06		197,070.00	224						
	310-025	Misc. Mag Diag Procurements	03OCT05*	31MAR06		91,440.48	224						
35 - Profile Diagnostics													
	350-001	Preliminary Design	01JUN05*	30DEC05		8,121.23	1,435						
	350-010	Final Design	02JAN06	30JUN06		65,180.20	1,435	R///RM2 =40hr ; EE//EM =160hr ; EM//EM =100hr ; EA//DM =140hr ;					
	350-015	Fab/Assy/Installation	03JUL06	30MAR07		146,043.51	1,435	R///RM2 =60hr ; EE//EM =140hr ; EM//EM =90hr ; EM//SM =220hr ; EE//SM =280hr ; 41=31\$k ;					
36 - Edge and Divertor Diagnostics													
	361-001	Preliminary Design	03OCT05*	03MAY06		18,275.90	1,465						
	361-010	Final Design	04MAY06	15SEP06		78,476.40	1,465	EM//EM =200hr ; EA//DM =280hr ; EM//SM =120hr ;					
	361-015	Fab/Assy/Installation	18SEP06	16FEB07		210,494.01	1,465	R///RM2 =310hr ; EM//EM =40hr ; EC//EM =20hr ; EM//SM =580hr ; 41=63\$k ;					
38 - Electron Beam (EB) Mapping													
	380-001	Preliminary Design	03OCT05*	03MAY06		34,588.60	1,465	R///RM2 =120hr ; EM//EM =80hr ; EA//DM =20hr ;					
	380-010	Final Design	04MAY06	22SEP06		145,648.40	1,465	R///RM2 =200hr ; EM//EM =360hr ; EA//DM =480hr ;					

R///RM2 =160hr ; EE//EM =80hr ;

R///RM2 =220hr ; EE//EM =560hr ;
EM//EM =200hr ; EA//DM =360hr ;
EM//SM =120hr ;

EE//EM =340hr ; EM//EM =180hr ;
EE//SM =2,200hr ; EM//SM =400hr ;

41=130\$;

41=70\$;

R///RM2 =10hr ; EE//EM =20hr ;
EM//EM =20hr ;

R///RM2 =40hr ; EE//EM =160hr ;
EM//EM =100hr ; EA//DM =140hr ;

R///RM2 =60hr ; EE//EM =140hr ;
EM//EM =90hr ; EM//SM =220hr ;
EE//SM =280hr ; 41=31\$;

R///RM2 =30hr ; EM//EM =80hr ;

EM//EM =200hr ; EA//DM =280hr ;
EM//SM =120hr ;

R///RM2 =310hr ; EM//EM =40hr ;
EC//EM =20hr ; EM//SM =580hr ;
41=63\$;

R///RM2 =120hr ; EM//EM =80hr ;
EA//DM =20hr ;

R///RM2 =200hr ; EM//EM =360hr ;
EA//DM =480hr ;

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	380-015	Fab/Assy/Installation	25SEP06	16FEB07		360,848.72	1,465		R///RM2 =320hr ; EE//EM =80hr ; EC//EM =40hr ; EM//EM =280hr ; EE//SM =200hr ; EM//SM =390hr ; 41=129\$K ;				
	39 - Diagnostics Integration												
	390-001	LOE Support FY03	01OCT02*	30SEP03		58,868.16	2,348		R///RM2 =416hr ;				
	390-010	LOE Support FY04	01OCT03*	30SEP04		61,168.64	2,086			R///RM2 =416hr ;			
	390-015	LOE Support FY05	01OCT04*	30SEP05		168,820.70	1,825				R///RM2 =416hr ; EM//EM =416hr ; EA//DM =345hr ;		
	390-020	LOE Support FY06	03OCT05*	02OCT06		174,017.41	1,564	R///RM2 =416hr ; EM//EM =416hr ; EA//DM =345hr ;					
	390-025	LOE Support FY07	02OCT06*	30MAR07		87,984.43	1,435		R///RM2 =208hr ; EM//EM =208hr ; EA//DM =173hr ;				

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
4 - Electrical Power Systems													
41 - AC Power													
411 - Auxliary AC Power Systems													
	411-001	Test Cell AC Power Distrib - Prelim Dsn	01JAN03*	31DEC03		24,196.59	1,950						
	411-011	Test Cell AC Power Distrib - Final Dsn	01JAN04*	08APR05		25,235.60	1,950						
	411-021	Test Cell AC Power Distrib - Procurements	01JUL04*	30DEC05		66,078.56	1,760						
	411-031	Test Cell AC Power Distrib - Installation	15APR05*	02JAN07		71,337.21	1,498						
	411-041	Test Cell AC Power Distrib - Commission	01JUN06*	29DEC06		39,937.68	1,500						
	411-101	Ex Test Cell AC Pwr Distrib - Prelim Dsn	01JAN03*	31DEC03		9,669.76	1,950						
	411-111	Ex Test Cell AC Pwr Distrib - Final Dsn	01JAN04*	08APR05		12,617.80	1,950						
	411-121	Ex Test Cell AC Pwr Distrib - Procurements	01JUL04*	30JUN06		11,315.86	1,630						
	411-131	Ex Test Cell AC Pwr Distrib - Installation	27APR05*	02OCT06		60,388.21	1,564						
	411-141	Ex Test Cell AC Pwr Distrib - Commission	01JUN06*	30NOV06		38,969.45	1,521						
	411-201	Standby Pwr f/Cryo Sys - Prelim Dsn	01JAN03*	31DEC03		5,442.02	1,839						
	411-211	Standby Pwr f/Cryo Sys - Final Dsn	01JAN04*	12SEP05		5,703.32	1,839						
	411-221	Standby Pwr f/Cryo Sys - Procurements	01JUL04*	01MAR06		19,936.33	1,717						
	411-231	Standby Pwr f/Cryo Sys - Installation	15APR05*	31AUG06		30,686.02	1,586						
	411-241	Standby Pwr f/Cryo Sys - Commission	03APR06*	02OCT06		23,333.74	1,564						
	411-301	Grounding - Prelim Dsn	01JAN03*	31DEC03		5,442.02	1,825						
	411-311	Grounding - Final Dsn	01JAN04*	30SEP05		5,705.85	1,825						
	411-321	Grounding - Procurements	01FEB05*	31OCT06		6,417.74	1,543						
	411-331	Grounding - Installation	03JAN05*	01JAN07		30,692.66	1,499						
	411-341	Grounding - Commission	03JUL06*	01JAN07		9,754.83	1,499						
412 - Experimental AC Power Systems													
	412-001	D-Site Pulsed AC Pwr Distrib - Prelim Dsn	01JAN03*	31DEC03		4,227.75	1,825						
	412-011	D-Site Pulsed AC Pwr Distrib - Final Dsn	01JAN04*	30SEP05		4,432.75	1,825						

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	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	412-021	D-Site Pulsed AC Pwr Distrib - Procurements	01JUL04*	27JUN06		6,284.95	1,633			41=5\$sk ;			
	412-031	D-Site Pulsed AC Pwr Distrib - Installation	03JAN05*	30AUG06		17,321.99	1,587			EE//EM =16hr ; EE//SM =64 ; EE//TB =40hr ; EM//TB =40hr			
	412-041	D-Site Pulsed AC Pwr Distrib - Commission	03JUL06*	01JAN07		11,102.53	1,499			EE//EM =24hr ; EE//SM =24hr ; EE//TB =40hr ; ea/dm=8			
42 - AC/DC Converters													
422 - D-Site AC/DC Converters													
	422-041	Coil Pwr Supplies - Commission	03APR06*	02OCT06		14,574.79	1,564			EE//EM =40hr ; 41=0.50\$sk ; EE//SM =40hr ; EE//TB =32hr ;			
43 - DC Systems													
431 - C-Site DC Systems													
	431-001	Coil DC Cabling to DLS - Prelim Dsn	01JAN03*	31DEC03		26,436.05	1,847		EE//EM =68hr ; EA//DM =160hr ;				
	431-011	Coil DC Cabling to DLS - Final Dsn	01JAN04	31AUG05		27,697.84	1,847		EE//EM =68hr ; EA//DM =160hr ;				
	431-021	Coil DC Cabling to DLS - Procurements	01JUL04*	30JUN06		82,731.49	1,630		41=66\$sk ;				
	431-031	Coil DC Cabling to DLS - Installation	10MAY05*	31AUG06		60,765.36	1,586		EE//EM =120hr ; EE//SM =1 ; EE//TB =60hr ; EM//TB =60hr				
	431-101	DC Cabling to Coils in TC - Prelim Dsn	01JAN03*	31DEC03		22,084.93	1,759		EE//EM =68hr ; EA//DM =117hr ;				
	431-111	DC Cabling to Coils in TC - Final Dsn	01JAN04	02JAN06		23,287.65	1,759		EE//EM =68hr ; EA//DM =117hr ;				
	431-121	DC Cabling to Coils in TC - Procurements	01JUL04*	28JUL06		84,128.03	1,610		41=67\$sk ;				
	431-131	DC Cabling to Coils in TC - Installation	15APR05*	31AUG06		41,604.50	1,586		EE//EM =80hr ; EE//SM =80 ; EE//TB =40hr ; EM//TB =40hr				
432 - D-to-C Site DC Systems													
	432-001	D to C Site DC Cabling - Prelim Dsn	01JAN03*	01APR04		21,173.63	1,759		EE//EM =88hr ; EA//DM =77hr ;				
	432-011	D to C Site DC Cabling - Final Dsn	02APR04*	06OCT04		21,680.67	2,082		EE//EM =88hr ; EA//DM =77hr ;				
	432-021	Dc Cabling to C-Site - 1000mcm 5kvcable	02APR04	02JAN06	B	143,442.01	1,759		41=119\$sk ;				
	432-022	Dc Cabling to C-Site - misc procurements	01JUL04*	31MAR06		15,491.12	1,695		41=12\$sk ;				
	432-031	Dc Cabling to C-Site - Installation Supports	01APR04*	12APR06		438,285.60	1,687		EE//EM =120hr ; 41=315\$sk ; EE//SM =80hr ; EE//TB =60hr ; EM//TB =60hr ; ea/dm=77				
	432-032	Dc Cabling to C-Site - Installation Cable	02MAY05*	24JUL06		691,286.25	1,614		41=500\$sk ; 4E = 45.6				

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	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	441-031	C-Site Interlocks - Installation	01JUN05*	12JUL06		180,651.08	1,622					EE//EM =264hr ; EE//SM =320hr ; EE//TB =500hr ; EM//TB =500hr	
	441-101	D-to-C Site Interlocks - Prelim Dsn	01APR03*	30MAR04		9,761.46	1,950					EE//EM =40hr ; EA//DM =36hr ;	
	441-111	D-to-C Site Interlocks - Final Dsn	31MAR04	08APR05		10,117.49	1,950					EE//EM =40hr ; EA//DM =36hr ;	
	441-121	D-to-C Site Interlocks - Procurements	01JUL04*	31MAR06		6,246.42	1,695					41=05\$k ;	
	441-131	D-to-C Site Interlocks - Installation	01JUN05*	10AUG06		27,120.56	1,601					EE//EM =40hr ; EE//SM =40hr ; EE//TB =80hr ; EM//TB =80hr	
	441-141	D-to-C Site Interlocks - Commission	01JUN06*	30NOV06		20,820.17	1,521					EE//EM =40hr ; EE//SM =40hr ; EE//TB =80hr ; ea//dm=24	
	441-201	D-Site Interlocks - Prelim Dsn	01APR03*	30MAR04		26,921.59	1,830					EE//EM =132hr ; EA//DM =67hr ;	
	441-211	D-Site Interlocks - Final Dsn	31MAR04	23SEP05		28,043.00	1,830					EE//EM =132hr ; EA//DM =67hr ;	
	441-221	D-Site Interlocks - Procurements	01JUL04*	30JUN06		17,552.15	1,630					41=14\$k ;	
	441-231	D-Site Interlocks - Installation	01JUN05*	24JUL06		83,992.71	1,614					EE//EM =120hr ; EE//SM =200hr ; EE//TB =220hr ; EM//TB =220hr	
	441-241	D-Site Interlocks - Commission	01JUN06*	30NOV06		41,306.47	1,521					EE//EM =80hr ; EE//SM =80hr ; EE//TB =160hr ; ea//dm=45	
442 - Kirk Key Interlocks													
	442-001	Kirk Keys - Prelim Dsn	01APR03*	30MAR04		12,803.54	1,899					EE//EM =60hr ; EA//DM =36hr ;	
	442-011	Kirk Keys - Final Dsn	31MAR04*	20JUN05		13,304.83	1,899					EE//EM =60hr ; EA//DM =36hr ;	
	442-021	Kirk Keys - Procurements	02AUG04*	31MAY06		12,571.26	1,652					41=10\$k ;	
	442-031	Kirk Keys - Installation	01APR05*	28SEP06		34,522.81	1,566					EE//EM =24hr ; EE//SM =40hr ; EE//TB =140hr ; EM//TB =140hr	
	442-041	Kirk Keys - Commission	03JUL06*	01JAN07		24,349.31	1,499					EE//EM =40hr ; EE//SM =40hr ; EE//TB =120hr ; ea//dm=24	
443 - Real Time Control Systems													
	443-001	Develop Control Algorithms	03OCT05*	02OCT06		39,630.42	1,564					EE//EM =240hr ;	
444 - Instrument Systems													
	444-001	DC Current Transducers - Prelim Dsn	01JAN03*	31DEC03		5,442.02	2,090					EE//EM =20hr ; EA//DM =24hr ;	
	444-011	DC Current Transducers - Final Dsn	01JAN04	24SEP04		5,599.24	2,090					EE//EM =20hr ; EA//DM =24hr ;	
	444-021	DC Current Transducers - Procurements	01JUL04*	30DEC05		178,356.38	1,760					41=144\$k ;	
	444-031	DC Current Transducers - Installation	03JAN05*	08MAR06		37,308.01	1,712					EE//EM =32hr ; EE//SM =64hr ; EE//TB =140hr ; EM//TB =140hr ;	

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	444-041	DC Current Transducers - Commission	01JUN06*	30NOV06		18,944.40	1,521		EE//EM =24hr ; EE//SM =24hr ; EE//TB =120hr ;ea/dm=16				
	444-101	DC Shunts - Prelim Dsn	01JAN03*	31DEC03		5,442.02	1,950		EE//EM =20hr ; EA//DM =24hr ;				
	444-111	DC Shunts - Final Dsn	01JAN04	08APR05		5,675.71	1,950		EE//EM =20hr ; EA//DM =24hr ;				
	444-121	DC Shunts - Procurements	01JUL04*	02MAY06		80,143.80	1,673		41=64\$;				
	444-131	DC Shunts - Installation	03JAN05*	30JUN06		37,458.94	1,630		EE//EM =32hr ; EE//SM =64hr EE//TB =140hr ; EM//TB =140hr				
	444-141	DC Shunts - Commission	01JUN06*	30NOV06		18,944.40	1,521		EE//EM =24hr ; EE//SM =24hr ; EE//TB =120hr ;ea/dm=16				
	444-201	Signal Conditioning - Prelim Dsn	01JAN03*	31DEC03		23,522.93	1,950		EE//EM =140hr ; EA//DM =24hr ;				
	444-211	Signal Conditioning - Final Dsn	01JAN04	08APR05		24,533.45	1,950		EE//EM =140hr ; EA//DM =24hr ;				
	444-221	Signal Conditioning - Procurements	01JUL04*	31MAR06		11,243.55	1,695		41=09\$;				
	444-231	Signal Conditioning - Installation	03JAN05*	30JUN06		31,615.26	1,630		EE//EM =40hr ; EE//TB =140hr EM//TB =140hr ;ea/dm=16				
	444-241	Signal Conditioning - Commission	01JUN06*	30NOV06		23,072.62	1,521		EE//EM =80hr ; EE//SM =40hr ; EE//TB =40hr ;ea/dm=16				
	444-301	DC Potential transducers - Prelim Dsn	01JAN03*	31DEC03		10,884.03	1,888		EE//EM =40hr ; EA//DM =48hr ;				
	444-311	DC Potential transducers - Final Dsn	01JAN04*	05JUL05		11,386.10	1,888		EE//EM =40hr ; EA//DM =48hr ;				
	444-321	DC Potential transducers - Procurements	01JUL04*	30JUN06		25,146.35	1,630		41=20\$;				
	444-331	DC Potential transducers - Installation	10JUN05*	30JUN06		38,065.06	1,630		EE//EM =40hr ; EE//SM =40hr EE//TB =140hr ; EM//TB =140hr				
	444-341	DC Potential transducers - Commission	01JUN06*	30NOV06		20,724.98	1,521		EE//EM =24hr ; EE//SM =24hr ; EE//TB =120hr ;ea/dm=32				
445 - Coil protection Systems													
	445-001	Overload Protection - Prelim Dsn	01OCT03*	24MAR04		43,499.20	1,962		EE//EM =200hr ; EA//DM =120hr ;				
	445-011	Overload Protection - Final Dsn	25MAR04*	23MAR05		44,190.93	1,962		EE//EM =200hr ; EA//DM =120hr ;				
	445-021	Overload Protection - Procurements	01JUL04*	31MAR06		49,971.35	1,695		41=40\$;				
	445-031	Overload Protection - Installation	30SEP05*	30JUN06		70,341.97	1,630		EE//EM =64hr ; EE//SM =240hr EE//TB =140hr ; EM//TB =140hr				
	445-041	Overload Protection - Commission	01JUN06*	30NOV06		32,770.76	1,521		EE//EM =80hr ; EE//SM =32hr ; EE//TB =80hr ;ea/dm=80				
446 - Ground Fault Monitoring System													
	445-101	Ground Fault Protection - Prelim Dsn	01OCT03*	30MAR04		8,699.84	1,949		EE//EM =40hr ; EA//DM =24hr ;				
	445-111	Ground Fault Protection - Final Dsn	31MAR04*	11APR05		8,847.57	1,949		EE//EM =40hr ; EA//DM =24hr ;				

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	445-121	Ground Fault Protection - Procurements	01JUL04*	29JUN06		7,543.25	1,631						
	445-131	Ground Fault Protection - Installation	03JAN05*	30JUN06		20,537.26	1,630						
	445-141	Ground Fault Protection - Commission	01JUN06*	30NOV06		13,511.47	1,521						
45 - Power System Design and Integration													
451 - System Design and Interfaces													
	451-001	Design Drawings,changes,as-builts	01JAN03*	30MAY07		255,587.87	1,392						
	451-011	PDR Power Systems	01JAN03*	01SEP03		9,976.00	2,369						
	451-021	FDR D-Site	01DEC03*	22DEC03		10,365.60	2,289						
	451-031	FDR C-Site	01JUN04*	21JUN04		10,365.60	2,159						
	451-041	FDR Cabling D-Site	01JAN04*	31DEC04		10,452.65	2,020						
	451-051	FDR Cabling C-Site	03MAY04*	01MAR05		10,537.60	1,978						
	451-061	FDR DC Transmission	01APR03*	29JUN04		10,209.04	2,153						
	451-071	FDR AC Auxiliaries & Grounding	01JAN03*	31JUL03		9,976.00	2,391						
	451-081	Calculations	01OCT03*	02OCT06		52,096.17	1,564						
452 - Electrical Systems Support													
	452-001	Diagnostics AC Pwr Distrib - Prelim Dsn	01APR03*	30MAR04		25,696.47	2,218						
	452-011	Diagnostics AC Pwr Distrib - Final Dsn	01APR04*	08JUN06		27,123.99	1,646						
	452-021	Diagnostics AC Pwr Distrib - Procurements	01JUL04*	29SEP06		11,372.15	1,565						
	452-031	Diagnostics AC Pwr Distrib - Installation	30SEP05*	02OCT06		90,668.10	1,564						
	452-041	Diagnostics AC Pwr Distrib - Commission	01JUN06*	30NOV06		43,914.79	1,521						
	452-101	Diagnostics Sensor Cabling - Prelim Dsn	01APR03*	30MAR04		39,725.78	2,218						
	452-111	Diagnostics Sensor Cabling - Final Dsn	01APR04*	05AUG05		41,336.86	1,865						
	452-121	Diagnostics Sensor Cabling - Procurements	01JUL04*	02MAY06		22,540.45	1,673						
	452-131	Diagnostics Sensor Cabling - Installation	07OCT05*	04JUL06		123,445.60	1,628						
	452-141	Diagnostics Sensor Cabling - Commission	01JUN06*	30NOV06		47,475.95	1,521						

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
453 - System Testing (PTP's)														
	453-001	Procedures	03JAN05*	02JAN06			43,177.78	1,759				EE//EM =160hr ; EA//DM =160hr ;		
	453-111	PTP's & ISTEP's	03APR06*	01JAN07			89,590.07	1,499	EE//EM =288hr ; EE//SM =80hr ;					
	453-112	PTP's & ISTEP's Test Equipt	03APR06*	01JAN07			33,255.82	1,499	EE//TB =376hr ;			41=25\$K ;		
46 - FCPC Building Modifications														
	611A.010	Lab Fab/Assy/Installation	24MAR04*	27SEP04			21,407.83	2,089			em//sm=40 ;EM//TB=144; 41=5K			

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
5 - Central I&C Systems													
51 - TCP/IP Infrastructure Systems													
	51-001	Preliminary Design (Title I)	06MAR06*	05MAY06		12,412.00	1,471						
	51-005	Final Design (Title II)	08MAY06	06JUN06		24,824.00	1,471						
	51-010	Lab Fab/Assy/Installation (Title III)	07JUN06	08FEB07		389,058.15	1,471						
	51-015	Hardware/Material	07JUN06	10NOV06		126,439.82	1,535						
	51-016	Ethernet hubs and port modules	07JUN06	10NOV06		153,240.29	1,535						
	51-2003	Ldlevel of Effort FY03	01OCT02*	29SEP03		3,364.56	2,349						
	51-2004	Level of Effort FY04	01OCT03*	28SEP04		3,496.08	2,088						
	51-2005	Level of Effort FY05	01OCT04*	29SEP05		3,612.48	1,826						
52 - Central Instrumentation & Control													
	52-001	Preliminary Design (Title I)	01DEC05*	03APR06		77,575.00	1,446						
	52-005	Final Design (Title II)	04APR06	01AUG06		239,763.52	1,446						
	52-010	Lab Fab/Assy/Installation (Title III)	02AUG06	15MAR07		347,662.64	1,446						
	52-015	Hardware/Material	02AUG06	03NOV06		148,489.14	1,540						
	52-016	I/O Purchases	02AUG06	03NOV06		154,215.63	1,540						
	52-2003	Level of Effort FY03	01OCT02*	29SEP03		3,364.56	2,349						
	52-2004	Level of Effort FY04	01OCT03*	28SEP04		3,496.08	2,088						
	52-2005	Level of Effort FY05	01OCT04*	29SEP05		3,612.48	1,826						
53 - Data Acquisition & Facility Computing													
	53-001	Preliminary Design (Title I)	01DEC05*	03APR06		49,648.00	1,446						
	53-005	Final Design (Title II)	04APR06	01AUG06		56,686.52	1,446						
	53-010	Lab Fab/Assy/Installation (Title III)	02AUG06	15MAR07		165,237.64	1,446						

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	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	53-015	Hardware/Material	02AUG06	03NOV06		208,950.19	1,540					EC//EM =156.9\$ k ;	
	53-016	I/O Purchases	02AUG06	03NOV06		149,820.88	1,540					EC//EM =113\$ k ;	
	53-2003	Level of Effort FY03	01OCT02*	29SEP03		3,364.56	2,349	EC//EM =24hr ;					
	53-2004	Level of Effort FY04	01OCT03*	28SEP04		3,496.08	2,088		EC//EM =24hr ;				
	53-2005	Level of Effort FY05	01OCT04*	29SEP05		3,612.48	1,826			EC//EM =24hr ;			
54 - Facility Timing & Synchronization													
	54-001	Preliminary Design (Title I)	03OCT05*	17FEB06		99,296.00	1,454					EC//EM =640hr ;	
	54-005	Final Design (Title II)	20FEB06	22MAY06		77,991.26	1,454					EC//EM =480hr ; 35=02\$ k ;	
	54-010	Lab Fab/Assy/Installation (Title III)	23MAY06	05MAR07		428,738.58	1,454	EC//EM =1,043hr ; EC//SM =700hr ; EC//ES =1,280hr ;					
	54-015	Hardware/Material	23MAY06	09OCT06		64,256.33	1,559					EC//EM =49\$ k ;	
	54-2003	Level of Effort FY03	01OCT02*	29SEP03		3,364.56	2,349	EC//EM =24hr ;					
	54-2004	Level of Effort FY04	01OCT03*	28SEP04		3,496.08	2,088		EC//EM =24hr ;				
55 - Real Time Plasma & Power Supply Control Sys													
	55-001	Preliminary Design (Title I)	01MAR06*	01JUN06		24,824.00	1,446					EC//EM =160hr ;	
	55-005	Final Design (Title II)	02JUN06	01SEP06		24,824.00	1,446					EC//EM =160hr ;	
	55-010	Lab Fab/Assy/Installation (Title III)	04SEP06	15MAR07		242,974.64	1,446	EC//EM =823hr ; EC//SM =1,200hr ;					
	55-015	Hardware/Material	04SEP06	19OCT06		71,229.95	1,551					EC//EM =53\$ k ;	
	55-2003	Level of Effort FY03	01OCT02*	29SEP03		3,364.56	2,349	EC//EM =24hr ;					
	55-2004	Level of Effort FY04	01OCT03*	28SEP04		3,496.08	2,088		EC//EM =24hr ;				
	55-2005	Level of Effort FY05	01OCT04*	29SEP05		3,612.48	1,826			EC//EM =24hr ;			
56 - Central Safety Interlock Systems													
	56-001	Preliminary Design (Title I)	01MAR06*	01JUN06		24,824.00	1,446					EC//EM =160hr ;	
	56-005	Final Design (Title II)	02JUN06	29SEP06		24,824.00	1,446					EC//EM =160hr ;	

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	56-010	Lab Fab/Assy/Installation (Title III)	02OCT06	15MAR07		225,622.50	1,446		EC//EM =710hr ; EC//SM =1,200hr ;				
	56-015	Hardware/Material	02JUN06	10NOV06		123,357.12	1,535				41=93\$k ;		
	56-2003	Level of Effort FY03	01OCT02*	29SEP03		3,364.56	2,349	EC//EM =24hr ;					
	56-2004	Level of Effort FY04	01OCT03*	28SEP04		3,496.08	2,088	EC//EM =24hr ;					
	56-2005	Level of Effort FY05	01OCT04*	29SEP05		3,612.48	1,826		EC//EM =24hr ;				
57 - Control Room Facility													
	57-001	Preliminary Design (Title I)	01MAY06*	01JUN06		12,412.00	1,560				EC//EM =80hr ;		
	57-005	Final Design (Title II)	02JUN06	01SEP06		12,412.00	1,560				EC//EM =80hr ;		
	57-010	Lab Fab/Assy/Installation (Title III)	04SEP06	06OCT06		172,182.94	1,560	EC//EM =400hr ; EC//SM =1,000hr ; 41=12\$k ;					
	57-015	Hardware/Material	04SEP06	06OCT06		112,634.96	1,560				41=85\$k ;		
	57-2003	Level of Effort FY03	01OCT02*	29SEP03		3,364.56	2,349	EC//EM =24hr ;					
	57-2004	Level of Effort FY04	01OCT03*	28SEP04		3,496.08	2,088	EC//EM =24hr ;					
	57-2005	Level of Effort FY05	01OCT04*	29SEP05		3,612.48	1,826		EC//EM =24hr ;				

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float								
									FY03	FY04	FY05	FY06	FY07	FY08		
622 - LN2 Coil Cooling Supply																
		632-001	Preliminary Design	01OCT03*	30MAR04		14,182.15	267								
		632-010	Final Design	31MAR04*	28SEP04		26,675.35	397								
		632-015	Fab/Assy/Installation	03APR06*	29SEP06		108,419.88	134	EM//EM =89hr ; EM//SM =70hr ;							
		632-020	Procurement	03OCT05*	31MAR06		112,724.04	134								
623 - GN2 Cryostat Cooling System																
		633-001	Preliminary Design	04MAR04*	01SEP04		14,182.15	156								
		633-010	Final Design	02SEP04*	02MAR05		23,139.96	286								
		633-015	Fab/Assy/Installation	03OCT05*	31MAR06		180,225.08	264	EM//EM =89hr ; EM//TB =2,000hr ;							
		633-020	Procurement	03MAR05*	31AUG05		98,206.58	286								
63 - Utility Systems																
		640.001	Preliminary design	28NOV05*	17FEB06		20,095.60	1,625								
		640.011	Final Design	20FEB06	12MAY06		11,224.40	1,625								
		640.021	Assembly/Fabrication	15MAY06	07JUL06		64,159.00	1,625	em/em=40; em/tb=418; 41=\$17.40k							
64 - Bakeout System																
		650.001	Preliminary Design	01OCT03*	01DEC03		38,022.00	1,965								
		650.005	Final Design	02DEC03	18JUN04		108,908.80	1,965								
		650.010	Lab Fab/Assy/Installation	21JUN04	17DEC04		259,241.63	2,030								
		650.012	Procured Hardware/Material	21JUN04	18MAR05		155,728.26	1,965								
		650.015	Procured Installation/Assy	01NOV06*	29DEC06		10,900.80	1,500								

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08	
65 - Facility Systems Integration															
	660.101	LOE FY03	01OCT02*	30SEP03			52,905.75	2,348		em//em=345					
	660.102	LOE FY04	01OCT03*	30SEP04			54,975.75	2,086		em//em=345					
	660.103	LOE FY05	01OCT04*	30SEP05			56,807.70	1,825			em//em=345				

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float								
									FY03	FY04	FY05	FY06	FY07	FY08		
7 - Test Cell Preparation and Machine Assy																
71 - Shield Wall Seismic Modifications																

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	714.020	LOE FY06	03OCT05*	02OCT06		341,490.13	1,564					em//em=1726;em//sm=432	
	714.030	LOE FY07	02OCT06*	30MAR07		394,159.36	1,435			em//em=1726;em//sm=864			
75 - Test Cell and Basement Assembly Operations													
750 - Test Cell & Basement Assembly Operations													
	730.1000	Begin Assembly Activities	03OCT05*			0.00	169						
	730.1020	Install & Level Support Base Plates	03OCT05	21OCT05		35,408.00	169					em//sm=80; em//tb=320	
	730.1030	Install/Level Machine Support Columns	24OCT05	25NOV05		53,112.00	169					em//sm=120; em//tb=480	
	730.1040	Install Platform	28NOV05	10FEB06		224,268.00	169					41+\$20k; em//em=40;em//sm=432;em//	
	730.1050	Install Lighting, Fire Det/Supprs under platform	13FEB06	22SEP06		67,362.48	169	41=\$6k;em//em=40;em//sm=80;em//tb=480				41=\$6k;em//em=40;em//sm=80;em//tb=480	
	730.1060	Install Lower Cryostat Floor	27DEC05	02JAN06		17,704.00	223					em//sm=40; em//tb=160	
	730.1070	Install Lower PF 3,4,5&6 into prelim position	03JAN06	09JAN06		17,704.00	223					em//sm=40; em//tb=160	
	730.1080	Install 1st Field Period Assembly	07MAR06	03APR06		17,704.00	183					em//sm=40; em//tb=160	
	730.1090	Install 2nd Field Period Assembly	17APR06	12MAY06		17,704.00	174					em//sm=40; em//tb=160	
	730.1100	Install 3rd Field Period Assembly	22JUN06	19JUL06		53,112.00	146					em//sm=120; em//tb=480	
	730.1110	Restore Shield Wall Area & complete platform	20JUL06	09AUG06		53,112.00	211					em//sm=120; em//tb=480	
	730.1120	Install Neutral Beams (WBS 250-5401?)	20SEP06*	07NOV06		0.00	147					em//sm=80; em//tb=320	
	730.1130	Make Final Vacuum Pump Connections to VV	20JUL06	02AUG06		35,408.00	146					support labor em//em=40; em//sm=160; em//tb=240	
	730.1140	PTP Pumpdown & leak check VV (WBS 220-025)	03AUG06	16AUG06		44,580.80	146					em//sm=25; em//tb=100	
	730.1150	Raise lower PF-3,4,5&6 coils into final position	17AUG06	21AUG06		11,065.00	146					em//sm=300; em//tb=300	
	730.1151	Install Trim Coils	17AUG06	06SEP06		58,476.00	151					em//sm=30; em//tb=120	
	730.1170	Install PF Solenoid into position (U/L 1&2 PF)	22AUG06	25AUG06		13,278.00	146					em//sm=25; em//tb=100	
	730.1175	Install Upper PF-3,4,5 & 6 coils	28AUG06	30AUG06		11,065.00	146					em//sm=80; em//tb=320	
	730.1180	Install Bus connections to coil sys (WBS 431-131	07SEP06	01NOV06		0.00	151					em//sm=80; em//tb=320	
	730.1185	Install External Cryostat Walls and Ceiling	31AUG06	13SEP06		0.00	146					em//sm=80; em//tb=320	
	730.1190	Connect Bakeout System (WBS 650.010)	02OCT06	10NOV06		0.00	134					em//sm=80; em//tb=320	
	730.1200	Connect Cryo System (WBS 633-015)	02OCT06	10NOV06		0.00	134					em//sm=80; em//tb=320	
	730.1210	Connect Cooling System (WBS 624.021)	14SEP06	25OCT06		0.00	146					em//sm=80; em//tb=320	
	730.1230	Complete Bus connections (WBS 4 to 6)	14SEP06	08NOV06		35,672.32	146					em//sm=80; em//tb=320	

		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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		Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
8 - Project Oversight and Support														
81 - Project Management and Control														
810 - Project Management & Control														

	Activity ID	Activity Description	Early Start	Early Finish	BA	Budgeted Cost	Total Float	FY03	FY04	FY05	FY06	FY07	FY08
	820.005	Proj engr,Sys Integr.,Designers, Deputy PM FY07	02OCT06*	30MAR07		261,380.62	1,435		EA//EM =1,035hr ; EA//DM =690hr ; 35=04\$k ;				
	820.005X	Proj engr,Sys Integr.,Designers, Deputy PM FY07	02APR07*	26JUN07		130,604.75	1,373		EA//EM =517hr ; EA//DM =345hr ; 35=02\$k ;				
	820.101	Purchased Design Services FY03	01OCT02*	29SEP03		35,763.90	2,349		41=30\$k ;				
	820.102	Purchased Design Services FY03	01OCT03*	28SEP04		36,149.70	2,088		41=30\$k ;				
84 - Project Physics													
840 - Project Physics													
	840.201	Project Physics/Engr Analysis FY03	01OCT02*	29SEP03		235,977.16	2,349		R///RM2 =900hr ; EA//EM =520hr ; EE//EM =85hr ; 41=8\$k ; 35=4\$k				
	840.202	Project Physics/Engr Analysis FY04	01OCT03*	28SEP04		112,572.16	2,088		R///RM2 =540hr ; EA//EM =175hr ; EE//EM =00hr ; 41=3\$k ; 35=01\$k ;				
	840.203	Project Physics/Engr Analysis FY05	01OCT04*	29SEP05		32,783.25	1,826			R///RM2 =180hr ; EA//EM =00hr ; EE//EM =00hr ; 41=3\$k ; 35=01\$k ;			
	840.204	Project Physics/Engr Analysis FY06	03OCT05*	29SEP06		33,890.83	1,565	R///RM2 =180hr ; EA//EM =00hr ; EE//EM =00hr ; 41=3\$k ; 35=01\$k ;					
	840.205	Project Physics/Engr Analysis FY07	02OCT06*	30MAR07		20,441.06	1,435		R///RM2 =90hr ; EA//EM =00hr ; EE//EM =00hr ; 41=2\$k ; 35=02\$k ;				
	840.205X	Project Physics/Engr Analysis FY07	02APR07*	26JUN07		10,220.53	1,373		R///RM2 =45hr ; EA//EM =00hr ; EE//EM =00hr ; 41=1\$k ; 35=01\$k ;				
	840.301	Project Physics/Engr Analysis FY03	01OCT02*	05SEP03		67,710.30	2,365		ORNLRM = 270HRS; ORNLEM = 180HRS; ORNL35 = \$1.6K ORNL41 =\$1.3k				
	840.302	Project Physics/Engr Analysis FY04	01OCT03*	28SEP04		26,819.10	2,088		ORNLRM = 90HRS; ORNLEM = 90HRS				
	840.303	Project Physics/Engr Analysis FY05	01OCT04*	29SEP05		0.00	1,826						
	840.304	Project Physics/Engr Analysis FY06	03OCT05*	29SEP06		0.00	1,565						
	840.305	Project Physics/Engr Analysis FY07	02OCT06*	30MAR07		1,766.53	1,435					ORN35 = \$1.6K	
	840.305X	Project Physics/Engr Analysis FY07	02APR07*	26JUN07		883.26	1,373					ORN35 = \$.8K	