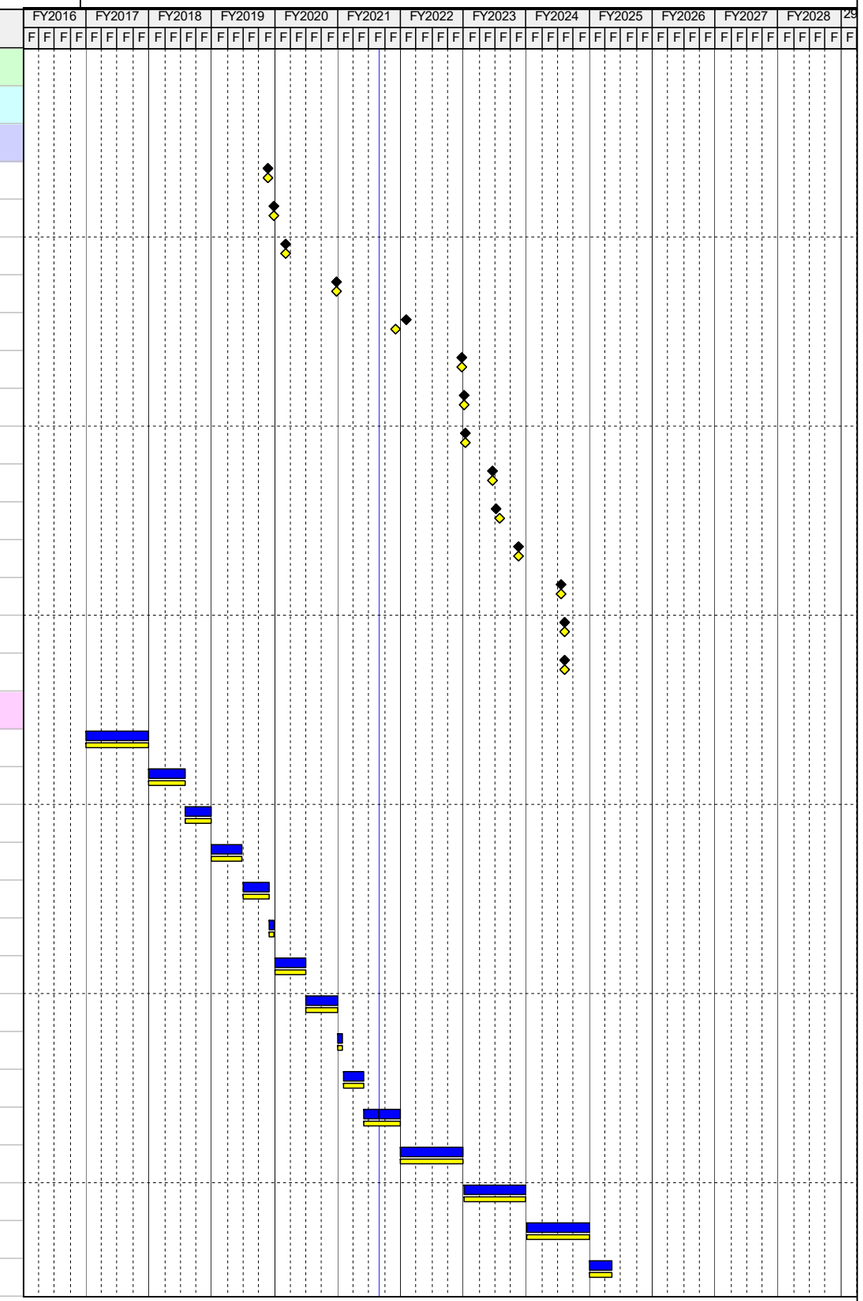
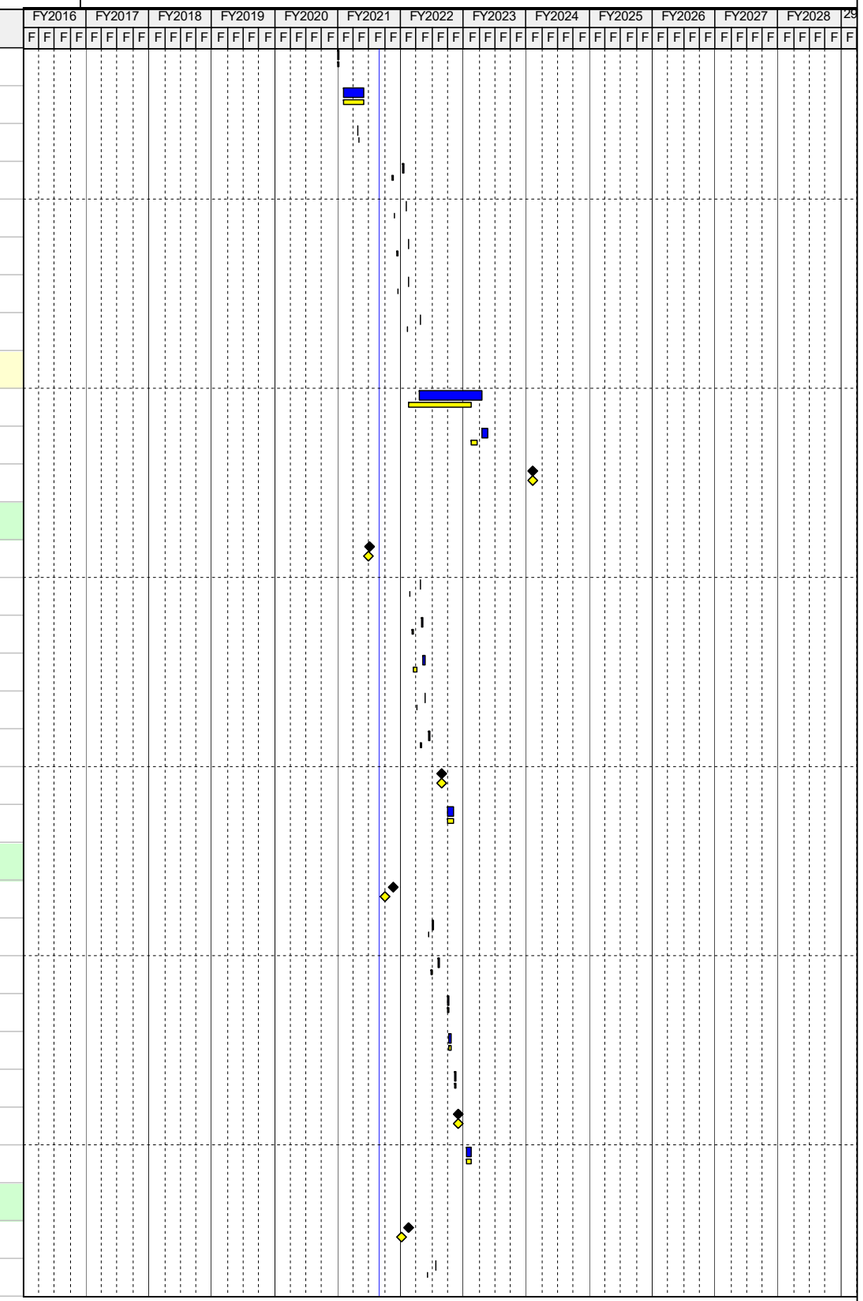
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P May FY2021 Status Schedule		03-Oct-16 A	11-Feb-25	03-Oct-16	11-Feb-25		908	$29,193,617	
P.03 RF Systems		03-Oct-16 A	11-Feb-25	03-Oct-16	11-Feb-25		908	$29,193,617	
P.03.01 Management and System Integration - RF Systems		03-Oct-16 A	11-Feb-25	03-Oct-16	11-Feb-25		908	$243,024	
P03FDR3b	P.3 CD3b Final Design Complete (Excluding LLRF, RFQ-Mod1 and KL04)		23-Aug-19 A		23-Aug-19	100%	0	$0	John Moss
P03FDR2	P.3 CD3 Final Design Complete (Excluding LLRF and RFQ-Mod1)		24-Sep-19 A		24-Sep-19	100%	0	$0	John Moss
P03PDC	P.3 Preliminary Designs Complete		06-Dec-19 A		06-Dec-19	100%	0	$0	John Moss
P03FDR3	P.3 Final Design Complete (LLRF and RFQ-Mod1) (MS)		22-Sep-20 A		22-Sep-20	100%	0	$0	John Moss
P03T3C	P.3 Linac Protection System Title III Complete (MS)		02-Nov-21		03-Sep-21	0%	0	$0	John Moss
P311_RDY1	RF Ready for CM 32 and 31 Testing (MS)		19-Sep-22		19-Sep-22	0%	0	$0	John Moss
P311MS10	P.03 RF Integrated Systems Testing Phase 1 Complete (MS)		03-Oct-22		03-Oct-22	0%	0	$0	John Moss
P311MS008	P.03 RF Documentation for IRR/ERR Phase 1 Complete (MS)		10-Oct-22		10-Oct-22	0%	0	$0	John Moss
P311_RDY2	RF Ready for CM 30, 29, & 28 Testing (MS)		22-Mar-23		22-Mar-23	0%	0	$0	John Moss
P311MS20	P.03 RF Integrated Systems Testing Phase 2 Complete (MS)		12-Apr-23		26-Apr-23	0%	0	$0	John Moss
P311MS009	P.03 RF Documentation for ARR Phase 2 Complete (MS)		16-Aug-23		16-Aug-23	0%	0	$0	John Moss
P311_RDY3	RF Ready for CM 25 and 27 Testing (MS)		23-Apr-24		23-Apr-24	0%	0	$0	John Moss
P311MS30	P.03 RF Integrated Systems Testing Phase 3 Complete (MS)		08-May-24		08-May-24	0%	0	$0	John Moss
P311MS010	P.03 RF Documentation for IRR/ERR Phase 3 Complete (MS)		14-May-24		14-May-24	0%	0	$0	John Moss
P.03.01.01 Management and System Integration - RF Systems - (NEP31100)		03-Oct-16 A	11-Feb-25	03-Oct-16	11-Feb-25		908	$243,024	
P311M1	Manage P.3 WBS FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	John Moss
P311M4	Manage P.3 WBS FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	John Moss
P311M6	Manage P.3 WBS FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	John Moss
P311M11	Manage P.3 WBS FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	John Moss
P311M11B	Manage P.3 WBS FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	John Moss
P311M11C	Manage P.3 WBS FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	John Moss
P311M16	Manage P.3 WBS FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	John Moss
P311M16a	Manage P.3 WBS FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	John Moss
P311M21	Manage P.3 WBS FY21 (LOE) Part 1 (Oct20 only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	John Moss
P311M21a	Manage P.3 WBS FY21 (LOE) Part 2 (Nov20 - Feb21)	02-Nov-20 A	01-Mar-21 A	02-Nov-20	26-Feb-21	100%	0	$45,075	John Moss
P311M21b	Manage P.3 WBS FY21 (LOE) Part 3 (Mar21 - Sep21)	01-Mar-21 A	30-Sep-21	01-Mar-21	30-Sep-21	42.67%	86	$66,802	John Moss
P311M26	Manage P.3 WBS FY22 (LOE)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$79,836	John Moss
P311M31	Manage P.3 WBS FY23 (LOE)	03-Oct-22	29-Sep-23	03-Oct-22	29-Sep-23	0%	245	$20,753	John Moss
P311M36	Manage P.3 WBS FY24 (LOE)	02-Oct-23	30-Sep-24	02-Oct-23	30-Sep-24	0%	247	$21,581	John Moss
P311M46	Manage P.3 WBS FY25 (LOE) (Closeout)	01-Oct-24	11-Feb-25	01-Oct-24	11-Feb-25	0%	83	$8,977	John Moss

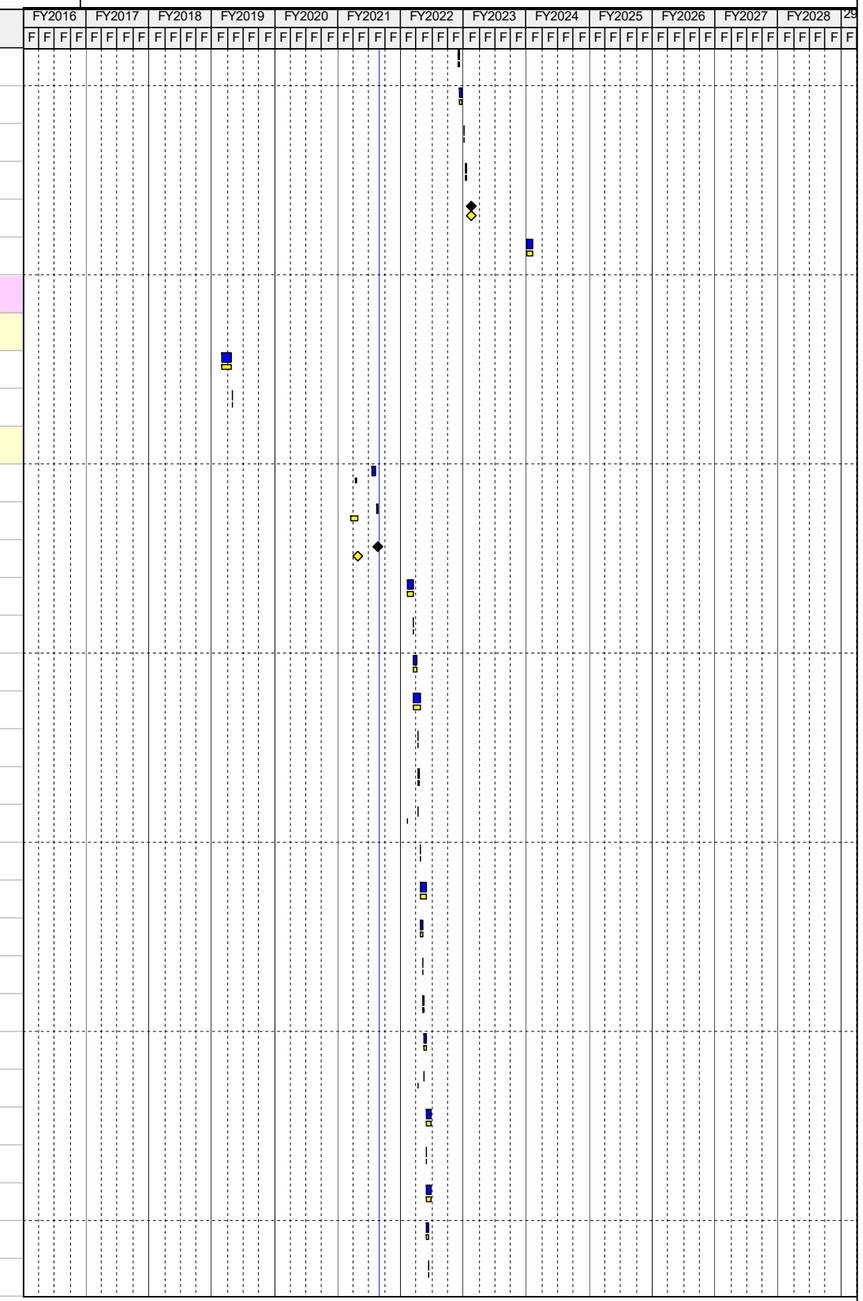


Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P.03.02 SCL HPRF		03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		730	$8,985,661	
P.03.02.01 Management and System Integration - SCL HPRF		03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		411	$37,519	
P.03.02.01.01 Management and System Integration - SCL HPRF - (NEP32110)		03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		411	$37,519	
P321M1	WBS Management P.3.2 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	John Moss
P321M4	WBS Management P.3.2 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	John Moss
P321M6	WBS Management P.3.2 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	John Moss
P321M11	WBS Management P.3.2 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	John Moss
P321M41	HPRF System Final Design Review (FDR)	27-Feb-19 A	28-Feb-19 A	27-Feb-19	28-Feb-19	100%	0	$0	John Moss
P321M001	P.3.2 and P.3.3 Organize and Verify Documentation for Phase 1 ARR	13-Sep-22	10-Oct-22	13-Sep-22	10-Oct-22	0%	20	$12,118	John Moss
P321M002	P.3.2 and P.3.3 Organize and Verify Documentation for Phase 2 ARR	16-Mar-23	13-Apr-23	16-Mar-23	13-Apr-23	0%	20	$12,452	John Moss
P321M003	P.3.2 and P.3.3 Organize and Verify Documentation for Phase 3 ARR	17-Apr-24	14-May-24	17-Apr-24	14-May-24	0%	20	$12,949	John Moss
P.03.02.02 Transmitters (SCL)		21-Aug-18 A	06-Nov-23	21-Aug-18	06-Nov-23		604	$2,336,314	
P.03.02.02.02 Design - Transmitters (SCL) - (NEP32220)		21-Aug-18 A	26-Jan-22	21-Aug-18	08-Nov-21		160	$2,059,942	
P322D16	Generate Interface Documents For Transmitters	21-Aug-18 A	31-Aug-18 A	21-Aug-18	31-Aug-18	100%	0	$0	John Moss
P322D11	Review and Modify Existing Transmitter Spec. - Part 1	04-Sep-18 A	28-Sep-18 A	04-Sep-18	28-Sep-18	100%	0	$0	John Moss
P322D11B	Review and Modify Existing Transmitter Spec. - Continued 50%	01-Oct-18 A	31-Oct-18 A	01-Oct-18	31-Oct-18	100%	0	$0	John Moss
P322MS001	Complete transmitter bid package		31-Oct-18 A		31-Oct-18	100%	0	$0	John Moss
P322D41	Prep for and Conduct Transmitter Procurement Readiness Review (PRR)	01-Nov-18 A	05-Nov-18 A	01-Nov-18	05-Nov-18	100%	0	$0	John Moss
P322D21	Generate Requisition for Transmitter Design/Engineering	06-Nov-18 A	06-Nov-18 A	06-Nov-18	06-Nov-18	100%	0	$0	John Moss
P322D26	Procurement of Transmitter Design/Engineering	07-Nov-18 A	29-Mar-19 A	07-Nov-18	29-Mar-19	100%	0	$0	John Moss
P322D26b	Procurement of Transmitter Design/Engineering - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	John Moss
P322D31	Award Contract for Transmitter - Design/Engineering	03-Sep-19 A	31-Oct-19 A	03-Sep-19	31-Oct-19	100%	0	$0	John Moss
P322MS002	Contract for transmitters awarded		31-Oct-19 A		31-Oct-19	100%	0	$0	John Moss
P322D34	Transmitter Vendor Documentation and Mobilization	01-Nov-19 A	20-Dec-19 A	01-Nov-19	20-Dec-19	100%	0	$0	John Moss
P322D122	XMTR Payment Milestone # 3) PDR and CDR of TRCC Approved	03-Feb-20 A	03-Feb-20 A	03-Feb-20	03-Feb-20	100%	0	$0	John Moss
P322D167	Transmitter Fabrication Oversight FY20 (LOE) (Oct19 - Mar20)	13-Feb-20 A	31-Mar-20 A	13-Feb-20	31-Mar-20	100%	0	$0	John Moss
P322D177	SCL XMTR Eng. and 1st Article Fab Summary (4,580K of 5,735K = 80%) (MSs Complete = 1,2, 3,4, 5, 7a, and 8a)	13-Feb-20 A	08-Nov-21	13-Feb-20	18-Jun-21	80%	113	$0	John Moss
P322D112	XMTR Payment Milestone # 1) Conceptual Design Approved	20-Mar-20 A	20-Mar-20 A	20-Mar-20	20-Mar-20	100%	0	$0	John Moss
P322D167a	Transmitter Fabrication Oversight FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	John Moss
P322D127	XMTR Payment Milestone # 4) FDR of TRCC Approved	30-Apr-20 A	30-Apr-20 A	30-Apr-20	30-Apr-20	100%	0	$0	John Moss
P322D117	XMTR Payment Milestone # 2) Preliminary Design Approved	30-Jun-20 A	30-Jun-20 A	30-Jun-20	30-Jun-20	100%	0	$0	John Moss
P322D132	XMTR Payment Milestone # 5) Final Design Approved	29-Sep-20 A	29-Sep-20 A	29-Sep-20	29-Sep-20	100%	0	$0	John Moss
P322D187	Transmitter Fabrication Oversight FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	John Moss

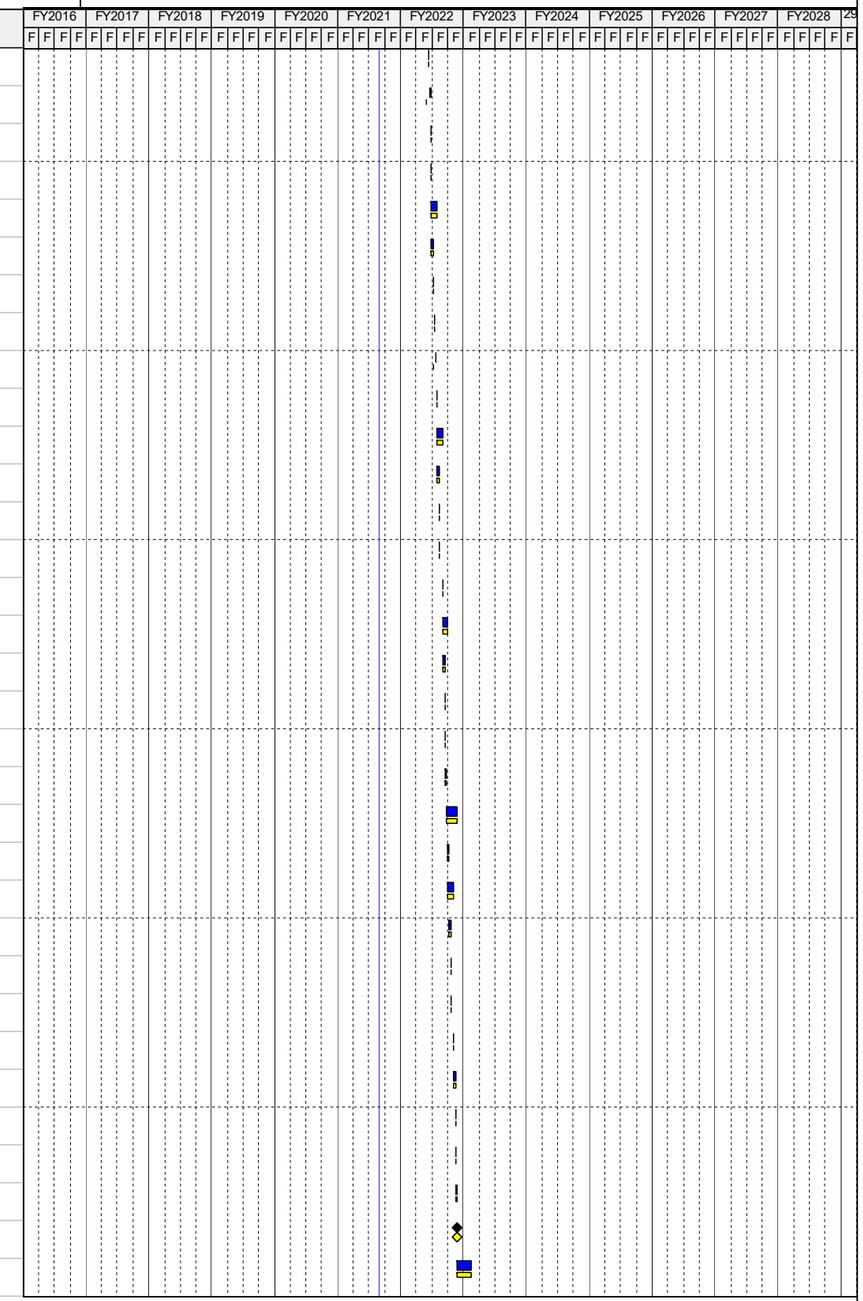
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P322D142	XMTR Payment Milestone # 7a) 25% of Materials Received	05-Oct-20 A	05-Oct-20 A	05-Oct-20	05-Oct-20	100%	0	$0	John Moss
P322D187a	Transmitter Fabrication Oversight FY21 (LOE) Part 2 (Nov20 - Feb21)	02-Nov-20 A	01-Mar-21 A	02-Nov-20	26-Feb-21	100%	0	$5,448	John Moss
P322D147	XMTR Payment Milestone # 8a) 50% of Materials Received	29-Jan-21 A	29-Jan-21 A	05-Feb-21	05-Feb-21	100%	0	$839,760	John Moss
P322D45	Factory Acceptance Testing XMTR-31 and Klystron Tanks (First Article) (1 month before receipt)	12-Oct-21	18-Oct-21	16-Aug-21	20-Aug-21	0%	5	$10,160	John Moss
P322D137	XMTR Payment Milestone # 6) TRR and Update of O&M Manual Completed	03-Nov-21	03-Nov-21	27-Aug-21	27-Aug-21	0%	1	$260,000	John Moss
P322D152	XMTR Payment Milestone # 9) 1st Transmitter Delivered	17-Nov-21	17-Nov-21	13-Sep-21	13-Sep-21	0%	1	$312,000	John Moss
P322D46	Receive and store XMTR-31 (First Article) racks, TRCC, and Klystron Tanks	18-Nov-21	18-Nov-21	14-Sep-21	14-Sep-21	0%	1	$4,220	John Moss
P322D157	XMTR Payment Milestone # 10) 1st Transmitter Acceptance Test Complete	26-Jan-22	26-Jan-22	08-Nov-21	08-Nov-21	0%	1	$628,354	John Moss
P.03.02.02.04	Installation - Transmitters (SCL) - (NEP32240)	06-Apr-21 A	06-Nov-23	01-Apr-21	06-Nov-23		550	$276,372	
P322i6	Oversight during installation of Transmitters Part 1 (LOE)	19-Jan-22	13-Jan-23	17-Nov-21	14-Nov-22	0%	245	$18,156	John Moss
P322i16	Oversight during installation of Transmitters Part 2 (LOE)	17-Jan-23	21-Feb-23	15-Nov-22	22-Dec-22	0%	26	$6,226	John Moss
P322MS70	Installation and successful functional testing of Superconducting Linac High Power Radio Frequency systems complete (MS)		06-Nov-23		06-Nov-23	0%	0	$0	John Moss
P.03.02.02.04.01	Phase 1 Installation	06-Apr-21 A	08-Aug-22	01-Apr-21	08-Aug-22		137	$84,250	
P322MS02	Phase 1 Start (MS)	06-Apr-21 A		01-Apr-21		100%	0	$0	John Moss
P322I526	Connect XMTR-30 and 31 to MPS	25-Jan-22	26-Jan-22	23-Nov-21	24-Nov-21	0%	2	$952	John Moss
P322I201	Set HV Tanks for klystrons 30A through 32D (Phase 1)	02-Feb-22	04-Feb-22	09-Dec-21	13-Dec-21	0%	3	$11,638	John Moss
P322I501	Install low Z ground plane for SCL-MOD-30 and associated RF Equip	07-Feb-22	18-Feb-22	14-Dec-21	05-Jan-22	0%	10	$28,081	John Moss
P322I281	Verify and Test Connections btw XMTR-30 and 31 racks, HV tanks, TRCC, WG, SCL-MOD-30, circs, couplers, PPS, MPS, Timing	22-Feb-22	23-Feb-22	03-Jan-22	04-Jan-22	0%	2	$3,808	John Moss
P322I446	HPRF Transmitter Testing XMTR-30 and 31	14-Mar-22	18-Mar-22	28-Jan-22	03-Feb-22	0%	5	$1,547	John Moss
P322iMS001	Ready for HV XMTR-30 & 31 (MS)		26-May-22		26-May-22	0%	0	$0	John Moss
P322i60	First High Power Test XMTR-30 & 31	05-Jul-22	08-Aug-22	05-Jul-22	08-Aug-22	0%	25	$38,224	John Moss
P.03.02.02.04.02	Phase 2 Installation	17-Aug-21	18-Nov-22	06-Jul-21	18-Nov-22		314	$85,692	
P322MS03	Phase 2 Start (MS)	17-Aug-21		06-Jul-21		0%	0	$0	John Moss
P322I516	Connect XMTR-27 and 28 to MPS	06-Apr-22	07-Apr-22	14-Mar-22	15-Mar-22	0%	2	$952	John Moss
P322I261	Verify and Test Connections btw XMTR-27 and 28 racks, HV tanks, TRCC, WG, SCL-MOD-28, circs, couplers, PPS, MPS, Timing	10-May-22	11-May-22	31-Mar-22	01-Apr-22	0%	2	$3,808	John Moss
P322I191	Set HV Tanks for klystrons 27A through 29D (Phase 2)	30-Jun-22	05-Jul-22	30-Jun-22	05-Jul-22	0%	3	$11,638	John Moss
P322I491	Install low Z ground plane for SCL-MOD-28 and associated RF Equip	06-Jul-22	19-Jul-22	06-Jul-22	19-Jul-22	0%	10	$28,081	John Moss
P322I356	HPRF Transmitter Testing XMTR-27 and 28	10-Aug-22	16-Aug-22	10-Aug-22	16-Aug-22	0%	5	$1,547	John Moss
P322iMS003	Ready for HV XMTR-27 & 28 (MS)		31-Aug-22		31-Aug-22	0%	0	$0	John Moss
P322i50	First High Power Test XMTR-27 & 28	17-Oct-22	18-Nov-22	17-Oct-22	18-Nov-22	0%	25	$39,666	John Moss
P.03.02.02.04.03	Phase 3 Installation	17-Nov-21	06-Nov-23	06-Oct-21	06-Nov-23		485	$82,049	
P322MS04	Phase 3 Start (MS)	17-Nov-21		06-Oct-21		0%	0	$0	John Moss
P322I81	Connect XMTR-25 to MPS	21-Apr-22	22-Apr-22	09-Mar-22	10-Mar-22	0%	2	$476	John Moss



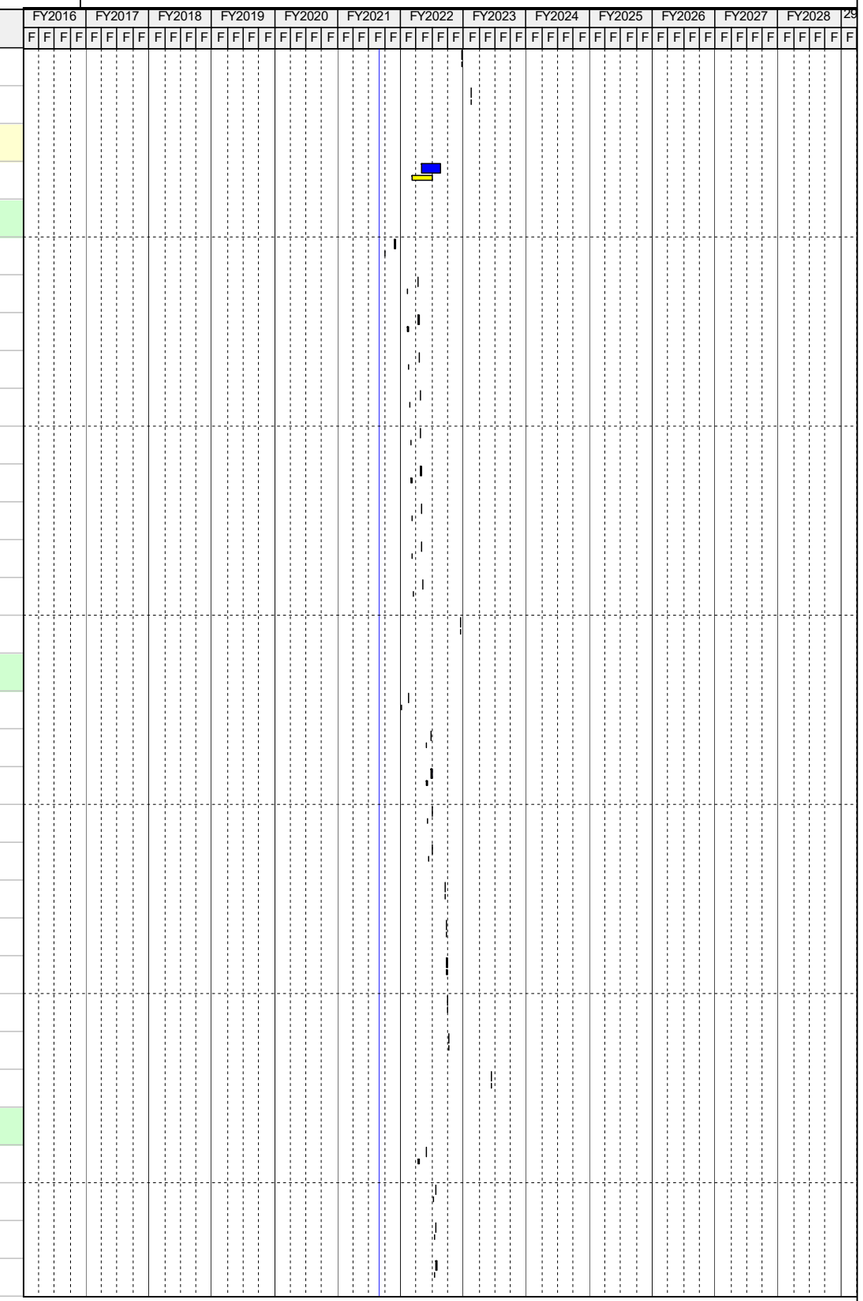
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P322I71	Set HV Tanks for klystrons 25A through 25D (Phase 3)	02-Sep-22	07-Sep-22	02-Sep-22	07-Sep-22	0%	3	$6,775	John Moss
P322I141	Install low Z ground plane for SCL-MOD-25 and associated RF Equip	08-Sep-22	21-Sep-22	08-Sep-22	21-Sep-22	0%	10	$28,081	John Moss
P322I91	Verify and Test Connections btw XMTR-25 racks, HV tanks, TRCC, WG, SCL-MOD-25, circs, couplers, PPS, MPS, Timing	04-Oct-22	05-Oct-22	04-Oct-22	05-Oct-22	0%	2	$3,951	John Moss
P322I101	HPRF Transmitter Testing XMTR-25	13-Oct-22	19-Oct-22	13-Oct-22	19-Oct-22	0%	5	$1,605	John Moss
P322iMS005	Ready for HV XMTR-25 (MS)		15-Nov-22		15-Nov-22	0%	0	$0	John Moss
P322i40	First High Power Test XMTR-25	03-Oct-23	06-Nov-23	03-Oct-23	06-Nov-23	0%	25	$41,160	John Moss
P.03.02.03 Klystrons (SCL)		26-Nov-18 A	16-Apr-24	26-Nov-18	16-Apr-24		648	$6,074,499	
P.03.02.03.02 Design - Klystrons (SCL) - (NEP32320)		26-Nov-18 A	29-Jan-19 A	26-Nov-18	29-Jan-19		0	$0	
P323D11	Generate interface documentation for Klystrons	26-Nov-18 A	25-Jan-19 A	26-Nov-18	25-Jan-19	100%	0	$0	John Moss
P323D21	Specification Review for Klystrons and Magnets for FDR	28-Jan-19 A	29-Jan-19 A	28-Jan-19	29-Jan-19	100%	0	$0	John Moss
P.03.02.03.03 Procure/Fab - Klystrons (SCL) - (NEP32331)		16-Apr-21 A	16-Nov-22	16-Dec-20	16-Nov-22		251	$5,977,013	
P323P1261	Test Klystron 1 in the RFTF	16-Apr-21 A	10-May-21 A	14-Jan-21	21-Jan-21	100%	0	$8,426	John Moss
P323P020	Process Procurement and Award Fabrication of Remaining Klystrons and Solenoids (13 thru 28)	17-May-21 A	25-May-21 A	16-Dec-20	27-Jan-21	100%	0	$1,477	John Moss
P323P541	Award of Remaining Klystrons and Solenoids (13 thru 18) Complete (MS)		25-May-21 A		27-Jan-21	100%	0	$0	John Moss
P323P831	Fabrication of klystrons 13 & 14	11-Nov-21	14-Dec-21	11-Nov-21	14-Dec-21	0%	22	$0	John Moss
P323P841	16 Successful completion of acceptance testing at Seller's facility prior to shipment (klystrons 13 & 14)	15-Dec-21	15-Dec-21	15-Dec-21	15-Dec-21	0%	1	$307,872	John Moss
P323P851	Shipment Period Klystrons 13 & 14	16-Dec-21	07-Jan-22	16-Dec-21	07-Jan-22	0%	10	$0	John Moss
P323P1291	Fabrication of klystrons 15 & 16	16-Dec-21	26-Jan-22	16-Dec-21	26-Jan-22	0%	22	$0	John Moss
P323P861	Receive and Store Klystrons 13 & 14 (Send Klystron 14 to the RFTF For Testing)	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	0%	1	$1,645	John Moss
P323P1271	Test Klystron 14 in the RFTF	11-Jan-22	18-Jan-22	11-Jan-22	18-Jan-22	0%	5	$7,158	John Moss
P323P455	Receive and Store Klystron HV Tanks for XMTR-30 (Material $ with XMTRs)	11-Jan-22	11-Jan-22	10-Nov-21	10-Nov-21	0%	1	$3,717	John Moss
P323P871	17 Successful completion of acceptance testing at Seller's facility prior to shipment (klystrons 15 & 16)	27-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	0%	1	$307,872	John Moss
P323P1311	Fabrication of klystrons 17 & 18	27-Jan-22	25-Feb-22	27-Jan-22	25-Feb-22	0%	22	$0	John Moss
P323P881	Shipment Period Klystrons 15 & 16	28-Jan-22	10-Feb-22	28-Jan-22	10-Feb-22	0%	10	$0	John Moss
P323P901	24 Successful completion of acceptance testing at ORNL (or within 4 weeks of delivery) (Klystrons 13 & 14)	09-Feb-22	09-Feb-22	09-Feb-22	09-Feb-22	0%	1	$306,149	John Moss
P323P891	Receive and Store Klystrons 15 & 16	11-Feb-22	11-Feb-22	11-Feb-22	11-Feb-22	0%	1	$1,645	John Moss
P323P41	Procure Remaining Insulating Oil for klystrons 25A through 29D (Phase 3)	14-Feb-22	25-Feb-22	14-Feb-22	25-Feb-22	0%	10	$481	John Moss
P323P461	Receive and Store Klystron HV Tanks for XMTR-28 (Material $ with XMTRs)	17-Feb-22	17-Feb-22	10-Jan-22	10-Jan-22	0%	1	$3,717	John Moss
P323P52	Fabricate Remaining Insulating Oil for klystrons 25A through 29D (Phase 3)	28-Feb-22	25-Mar-22	28-Feb-22	25-Mar-22	0%	20	$0	John Moss
P323P911	18 Successful completion of acceptance testing at Seller's facility prior to shipment (klystrons17 & 18)	28-Feb-22	28-Feb-22	28-Feb-22	28-Feb-22	0%	1	$307,872	John Moss
P323P1321	Fabrication of klystrons 19 & 20	28-Feb-22	29-Mar-22	28-Feb-22	29-Mar-22	0%	22	$0	John Moss
P323P921	Shipment Period Klystrons 17 & 18	01-Mar-22	14-Mar-22	01-Mar-22	14-Mar-22	0%	10	$0	John Moss
P323P941	25 Successful completion of acceptance testing at ORNL (or within 4 weeks of delivery) (Klystrons 15 & 16)	14-Mar-22	14-Mar-22	14-Mar-22	14-Mar-22	0%	1	$306,149	John Moss



Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P323P931	Receive and Store Klystrons 17 & 18 (XMTR-28)	15-Mar-22	15-Mar-22	15-Mar-22	15-Mar-22	0%	1	$1,645	John Moss
P323P466	Receive and Store Klystron HV Tanks for XMTR-27 (Material $ with XMTRs)	24-Mar-22	24-Mar-22	01-Mar-22	01-Mar-22	0%	1	$3,717	John Moss
P323P211	Receive Remaining Insulating Oil for klystrons 25A through 29D (Phase 3)	28-Mar-22	28-Mar-22	28-Mar-22	28-Mar-22	0%	1	$65,340	John Moss
P323P951	19 Successful completion of acceptance testing at Seller's facility prior to shipment (klystrons 19 & 20)	30-Mar-22	30-Mar-22	30-Mar-22	30-Mar-22	0%	1	$307,872	John Moss
P323P1331	Fabrication of klystrons 21 & 22	30-Mar-22	29-Apr-22	30-Mar-22	29-Apr-22	0%	22	$0	John Moss
P323P961	Shipment Period Klystrons 19 & 20	31-Mar-22	13-Apr-22	31-Mar-22	13-Apr-22	0%	10	$0	John Moss
P323P981	26 Successful completion of acceptance testing at ORNL (or within 4 weeks of delivery) (Klystrons 17 & 18)	13-Apr-22	13-Apr-22	13-Apr-22	13-Apr-22	0%	1	$306,149	John Moss
P323P971	Receive and Store Klystrons 19 & 20	14-Apr-22	14-Apr-22	14-Apr-22	14-Apr-22	0%	1	$1,645	John Moss
P323P471	Receive and Store Klystron HV Tanks for XMTR-25 (Material $ with XMTRs)	21-Apr-22	21-Apr-22	12-Apr-22	12-Apr-22	0%	1	$3,717	John Moss
P323P991	20 Successful completion of acceptance testing at Seller's facility prior to shipment (klystrons 21 & 22)	02-May-22	02-May-22	02-May-22	02-May-22	0%	1	$307,872	John Moss
P323P1341	Fabrication of klystrons 23 & 24	02-May-22	01-Jun-22	02-May-22	01-Jun-22	0%	22	$0	John Moss
P323P1001	Shipment Period Klystrons 21 & 22	03-May-22	16-May-22	03-May-22	16-May-22	0%	10	$0	John Moss
P323P1021	27 Successful completion of acceptance testing at ORNL (or within 4 weeks of delivery) (Klystrons 19 & 20)	16-May-22	16-May-22	16-May-22	16-May-22	0%	1	$306,149	John Moss
P323P1011	Receive and Store Klystrons 21 & 22	17-May-22	17-May-22	17-May-22	17-May-22	0%	1	$1,645	John Moss
P323P1031	21 Successful completion of acceptance testing at Seller's facility prior to shipment (klystrons 23 & 24)	02-Jun-22	02-Jun-22	02-Jun-22	02-Jun-22	0%	1	$307,872	John Moss
P323P1351	Fabrication of klystrons 25 & 26	02-Jun-22	01-Jul-22	02-Jun-22	01-Jul-22	0%	22	$0	John Moss
P323P1041	Shipment Period Klystrons 23 & 24	03-Jun-22	16-Jun-22	03-Jun-22	16-Jun-22	0%	10	$0	John Moss
P323P1061	28 Successful completion of acceptance testing at ORNL (or within 4 weeks of delivery) (Klystrons 21 & 22)	16-Jun-22	16-Jun-22	16-Jun-22	16-Jun-22	0%	1	$306,149	John Moss
P323P1051	Receive and Store Klystrons 23 & 24 (XMTR-27)	17-Jun-22	17-Jun-22	17-Jun-22	17-Jun-22	0%	1	$1,645	John Moss
P323P1371	Procurement Readiness Review (PRR) for Three Spare SCL Klystrons and Magnets	20-Jun-22	24-Jun-22	20-Jun-22	24-Jun-22	0%	5	$385	John Moss
P323P700	Procurement (Sole Source) of 3 Spare Klystrons	27-Jun-22	22-Aug-22	27-Jun-22	22-Aug-22	0%	40	$7,368	John Moss
P323P1081	22 Successful completion of acceptance testing at Seller's facility prior to shipment (klystrons 25 & 26)	05-Jul-22	05-Jul-22	05-Jul-22	05-Jul-22	0%	1	$307,872	John Moss
P323P1361	Fabrication of klystrons 27 & 28	05-Jul-22	03-Aug-22	05-Jul-22	03-Aug-22	0%	22	$0	John Moss
P323P1091	Shipment Period Klystrons 25 & 26	06-Jul-22	19-Jul-22	06-Jul-22	19-Jul-22	0%	10	$0	John Moss
P323P1071	29 Successful completion of acceptance testing at ORNL (or within 4 weeks of delivery) (Klystrons 23 & 24)	19-Jul-22	19-Jul-22	19-Jul-22	19-Jul-22	0%	1	$306,149	John Moss
P323P1101	Receive and Store Klystrons 25 & 26	20-Jul-22	20-Jul-22	20-Jul-22	20-Jul-22	0%	1	$1,645	John Moss
P323P1121	23 Successful completion of acceptance testing at Seller's facility prior to shipment (klystrons 27 & 28)	04-Aug-22	04-Aug-22	04-Aug-22	04-Aug-22	0%	1	$307,872	John Moss
P323P1131	Shipment Period Klystrons 27 & 28	05-Aug-22	18-Aug-22	05-Aug-22	18-Aug-22	0%	10	$0	John Moss
P323P1111	30 Successful completion of acceptance testing at ORNL (or within 4 weeks of delivery) (Klystrons 25 & 26)	18-Aug-22	18-Aug-22	18-Aug-22	18-Aug-22	0%	1	$306,149	John Moss
P323P1141	Receive and Store Klystrons 27 & 28 (XMTR-25)	19-Aug-22	19-Aug-22	19-Aug-22	19-Aug-22	0%	1	$1,645	John Moss
P323P1281	Test Klystron 28 in the RFTF	22-Aug-22	26-Aug-22	22-Aug-22	26-Aug-22	0%	5	$7,158	John Moss
P323P780	Award contract for 3 Spare Klystrons (MS)		22-Aug-22		22-Aug-22	0%	0	$0	John Moss
P323P4	Fabricate 3 Spare Klystrons	23-Aug-22	15-Nov-22	23-Aug-22	15-Nov-22	0%	60	$0	John Moss

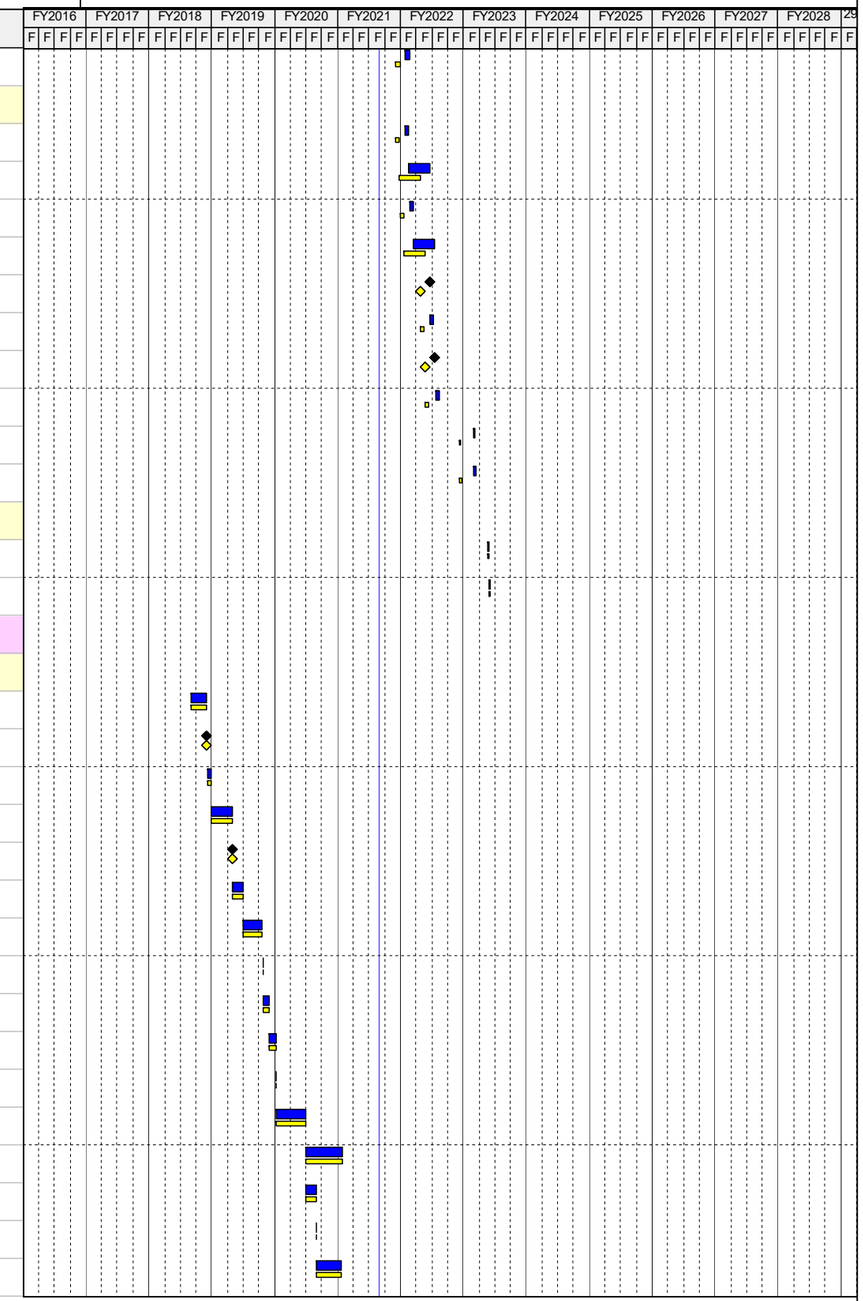


Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P323P1151	31 Successful completion of acceptance testing at ORNL (or within 4 weeks of delivery) (Klystrons 27 & 28)	20-Sep-22	20-Sep-22	20-Sep-22	20-Sep-22	0%	1	$306,158	John Moss
P323P116	Receive and Store 3 Spare Klystrons	16-Nov-22	16-Nov-22	16-Nov-22	16-Nov-22	0%	1	$939,007	John Moss
P.03.02.03.04	Installation - Klystrons (SCL) - (NEP32340)	27-Aug-21	16-Apr-24	01-Jul-21	16-Apr-24		648	$97,486	
P323I1	Oversight during klystron installation (LOE)	02-Feb-22	19-May-22	09-Dec-21	05-Apr-22	0%	76	$9,519	John Moss
P.03.02.03.04.01	Phase 1 Installation	27-Aug-21	12-Sep-22	01-Jul-21	12-Sep-22		257	$32,642	
P323I266	Install waveguide shorts (Until final connection made to cryomodule) for klystrons 30C through 32D (Phase 1)	27-Aug-21	31-Aug-21	01-Jul-21	06-Jul-21	0%	3	$2,369	John Moss
P323I161	Move HV Tanks for 30A through 32D to Assembly Area	12-Jan-22	12-Jan-22	11-Nov-21	11-Nov-21	0%	1	$3,717	John Moss
P323I361	Clean and inspect HV tanks for Klystrons 30A through 32D prior to assembly (Phase 1)	13-Jan-22	19-Jan-22	12-Nov-21	17-Nov-21	0%	4	$3,808	John Moss
P323I75	Test HV tank function for Klystrons 30A through 32D (Spot check FAT results) (Phase 1)	20-Jan-22	21-Jan-22	18-Nov-21	19-Nov-21	0%	2	$952	John Moss
P323I351	Mount plates and sockets for 30A through 32D on HV tanks (Phase 1)	24-Jan-22	24-Jan-22	22-Nov-21	22-Nov-21	0%	1	$952	John Moss
P323i286	Deliver klystrons 30A through 32D for tank assembly (Phase 1)	24-Jan-22	24-Jan-22	30-Nov-21	30-Nov-21	0%	1	$7,724	John Moss
P323I366	Assemble klystrons and magnets on tanks for Klystrons 30A through 32D (Phase 1)	25-Jan-22	28-Jan-22	01-Dec-21	06-Dec-21	0%	4	$3,808	John Moss
P323I376	Remove HV connection between 30B and 30C	31-Jan-22	31-Jan-22	07-Dec-21	07-Dec-21	0%	1	$476	John Moss
P323I256	Fill Tanks for Klystrons 30A through 32D with oil (Phase 1)	01-Feb-22	01-Feb-22	08-Dec-21	08-Dec-21	0%	1	$1,239	John Moss
P323I261	Make final WG connections to klystron output for 30C through 32D. Place shorting plates on output of klystrons 30A and B	07-Feb-22	09-Feb-22	14-Dec-21	16-Dec-21	0%	3	$3,692	John Moss
P323I476	Remove Waveguide Short for Klystrons 31A through 32D and Connect to CM31 and 32 (Phase 1)	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	0%	1	$3,906	John Moss
P.03.02.03.04.02	Phase 2 Installation	15-Nov-21	15-Mar-23	04-Oct-21	15-Mar-23		324	$32,221	
P323I226	Install waveguide shorts (Until final connection made to cryomodule) for klystrons 28B through 30B (Phase 2)	15-Nov-21	17-Nov-21	04-Oct-21	06-Oct-21	0%	3	$2,197	John Moss
P323I141	Move HV Tanks for 27A through 29D to Assembly Area (Phase 2)	25-Mar-22	25-Mar-22	02-Mar-22	02-Mar-22	0%	1	$3,717	John Moss
P323I321	Clean and inspect HV tanks for Klystrons 27A through 29D prior to assembly (Phase 2)	28-Mar-22	31-Mar-22	03-Mar-22	08-Mar-22	0%	4	$3,808	John Moss
P323I115	Test HV tank function for Klystrons 27A through 29D (Spot check FAT results) (Phase 2)	01-Apr-22	04-Apr-22	09-Mar-22	10-Mar-22	0%	2	$952	John Moss
P323I311	Mount plates and sockets for 27A through 29D on HV tanks (Phase 2)	05-Apr-22	05-Apr-22	11-Mar-22	11-Mar-22	0%	1	$952	John Moss
P323i276	Deliver klystrons 27A through 29D for tank assembly (Phase 2)	20-Jun-22	21-Jun-22	20-Jun-22	21-Jun-22	0%	2	$7,724	John Moss
P323I326	Assemble klystrons and magnets on tanks for Klystrons 27A through 29D (Phase 2)	22-Jun-22	27-Jun-22	22-Jun-22	27-Jun-22	0%	4	$3,808	John Moss
P323I520	Remove HV connection between 28A and 28B (Phase 2)	28-Jun-22	28-Jun-22	28-Jun-22	28-Jun-22	0%	1	$476	John Moss
P323I216	Fill Tanks for Klystrons 27A through 29D with oil (Phase 2)	29-Jun-22	29-Jun-22	29-Jun-22	29-Jun-22	0%	1	$1,239	John Moss
P323I221	Make final WG connections to kly output for 28B thru 30B. Place shorting plates on output of klys 27A-28A (Phase 2)	06-Jul-22	08-Jul-22	06-Jul-22	08-Jul-22	0%	3	$3,323	John Moss
P323I486	Remove Waveguide Short for Klystrons 29A through 30D and Connect to CM28, 29 and 30 (Phase 2)	15-Mar-23	15-Mar-23	15-Mar-23	15-Mar-23	0%	1	$4,026	John Moss
P.03.02.03.04.03	Phase 3 Installation	28-Feb-22	16-Apr-24	14-Jan-22	16-Apr-24		528	$23,104	
P323I111	Install waveguide shorts (Until final connection made to cryomodule) for klystrons 25A through 28A (Phase 3)	28-Feb-22	02-Mar-22	14-Jan-22	19-Jan-22	0%	3	$2,197	John Moss
P323I86	Move HV Tanks for 25A through 25D to Assembly Area (Phase 3)	22-Apr-22	22-Apr-22	13-Apr-22	13-Apr-22	0%	1	$3,717	John Moss
P323I71	Clean and inspect HV tanks for Klystrons 25A through 25D prior to assembly (Phase 3)	25-Apr-22	26-Apr-22	14-Apr-22	18-Apr-22	0%	2	$1,904	John Moss
P323I85	Test HV tank function for Klystrons 25A through 25D (Spot check FAT results) (Phase 3)	27-Apr-22	28-Apr-22	19-Apr-22	20-Apr-22	0%	2	$952	John Moss

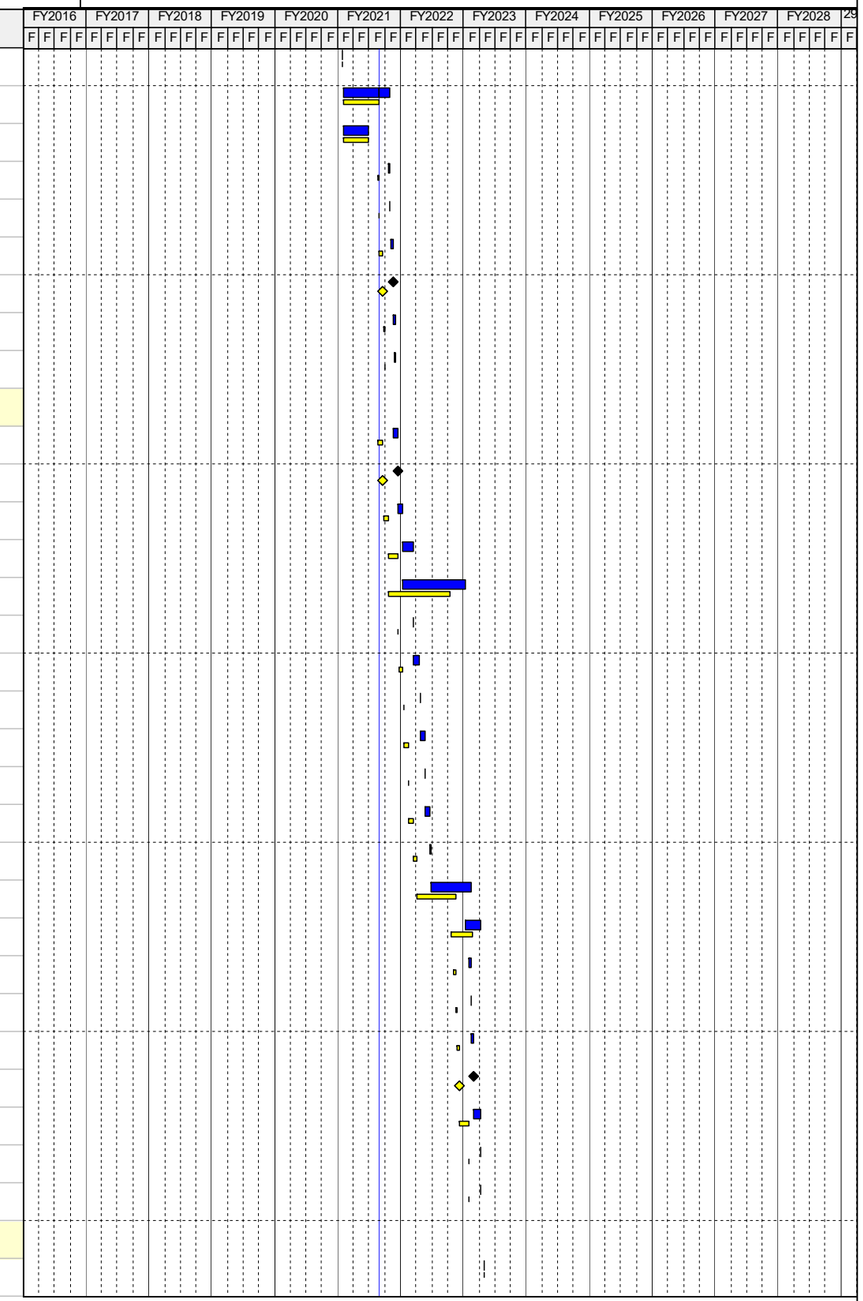


Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P323I61	Mount plates and sockets for 25A through 25D on HV tanks (Phase 3)	29-Apr-22	29-Apr-22	21-Apr-22	21-Apr-22	0%	1	$476	John Moss
P323i56	Deliver Klystrons 25A through 25D for tank assembly (Phase 3)	29-Aug-22	29-Aug-22	29-Aug-22	29-Aug-22	0%	1	$3,744	John Moss
P323I76	Assemble klystrons and magnets on tanks for Klystrons 25A through 25D (Phase 3)	30-Aug-22	31-Aug-22	30-Aug-22	31-Aug-22	0%	2	$1,904	John Moss
P323I101	Fill Tanks for Klystrons 25A through 25D with oil (Phase 3)	01-Sep-22	01-Sep-22	01-Sep-22	01-Sep-22	0%	1	$738	John Moss
P323I106	Make final WG connections to klystron output for 25A through 28A (Phase 3)	08-Sep-22	12-Sep-22	08-Sep-22	12-Sep-22	0%	3	$3,323	John Moss
P323I496	Remove Waveguide Short for Klystrons 25A through 28D and Connect to CM25 and 27 (Phase 3)	16-Apr-24	16-Apr-24	16-Apr-24	16-Apr-24	0%	1	$4,149	John Moss
P.03.02.05 Circulators (SCL)		02-Jan-19 A	24-Mar-22	02-Jan-19	07-Apr-22		201	$537,329	
P.03.02.05.02 Design (NEP32520)		02-Jan-19 A	27-Feb-19 A	02-Jan-19	27-Feb-19		0	$0	
P325D1	Update Specification and write statement of work for Circulators	02-Jan-19 A	25-Jan-19 A	02-Jan-19	25-Jan-19	100%	0	$0	John Moss
P325D11	Specification Review for SCL Circulators for FDR	28-Jan-19 A	27-Feb-19 A	28-Jan-19	27-Feb-19	100%	0	$0	John Moss
P.03.02.05.03 Procure/Fab Circulators (NEP32531)		17-May-21 A	24-Mar-22	01-Jun-21	07-Apr-22		201	$537,329	
P325P100	Procure 8 AFT Circulators	17-May-21 A	14-Jun-21	01-Jun-21	28-Jun-21	80%	10	$739	John Moss
P325P206	Fabrication of 8 AFT Circulators	15-Jun-21	09-Mar-22	29-Jun-21	23-Mar-22	0%	180	$0	John Moss
P325P236	Oversight of Fabrication of Circulators (LOE)	15-Jun-21	09-Mar-22	29-Jun-21	23-Mar-22	0%	180	$28,277	John Moss
P325P216	Receive 8 AFT Circulators	10-Mar-22	10-Mar-22	24-Mar-22	24-Mar-22	0%	1	$495,571	John Moss
P325P226	Acceptance Testing AFT Circulators	11-Mar-22	24-Mar-22	25-Mar-22	07-Apr-22	0%	10	$12,743	John Moss
P.03.02.06 Water Loads (SCL)		02-Jan-19 A	27-Feb-19 A	02-Jan-19	27-Feb-19		0	$0	
P.03.02.06.02 Design (NEP32620)		02-Jan-19 A	27-Feb-19 A	02-Jan-19	27-Feb-19		0	$0	
P326D1	Update Specification and Write Statement of work for Water Loads	02-Jan-19 A	25-Jan-19 A	02-Jan-19	25-Jan-19	100%	0	$0	John Moss
P326D11	Specification Review for SCL Water Loads for FDR	28-Jan-19 A	27-Feb-19 A	28-Jan-19	27-Feb-19	100%	0	$0	John Moss
P.03.03 NCL HPRF		03-Oct-16 A	19-Jul-23	03-Oct-16	19-Jul-23		527	$3,928,191	
P.03.03.01 Management and System Integration - NCL HPRF		03-Oct-16 A	19-Jul-23	03-Oct-16	19-Jul-23		0	$0	
P.03.03.01.01 Management and System Integration - NCL HPRF - (NEP33110)		03-Oct-16 A	19-Jul-23	03-Oct-16	19-Jul-23		0	$0	
P331M1	WBS Management P.3.3 FY17 (filled by L2 for 50% of FY17)	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	John Moss
P331M4	WBS Management P.3.3 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	John Moss
P331M6	WBS Management P.3.3 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	John Moss
P331M11	WBS Management P.3.3 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	John Moss
P331MS01	NCL HPRF Installation Complete (MS)		19-Jul-23		19-Jul-23	0%	0	$0	John Moss
P.03.03.02 Transmitters (NCL)		31-Aug-21	07-Mar-23	06-Jul-21	07-Mar-23		371	$210,024	
P.03.03.02.02 Design - Transmitters (NCL) - (NEP33220)		31-Aug-21	23-Nov-21	06-Jul-21	28-Sep-21		60	$14,517	
P332D1	Determine requirements for klystron filament power supply.	31-Aug-21	28-Sep-21	06-Jul-21	02-Aug-21	0%	20	$2,348	John Moss
P332D6	Write specifications for klystron filament power supply.	29-Sep-21	26-Oct-21	03-Aug-21	30-Aug-21	0%	20	$4,860	John Moss
P332D41	Determine requirements for klystron magnet power supplies.	29-Sep-21	26-Oct-21	03-Aug-21	30-Aug-21	0%	20	$2,430	John Moss

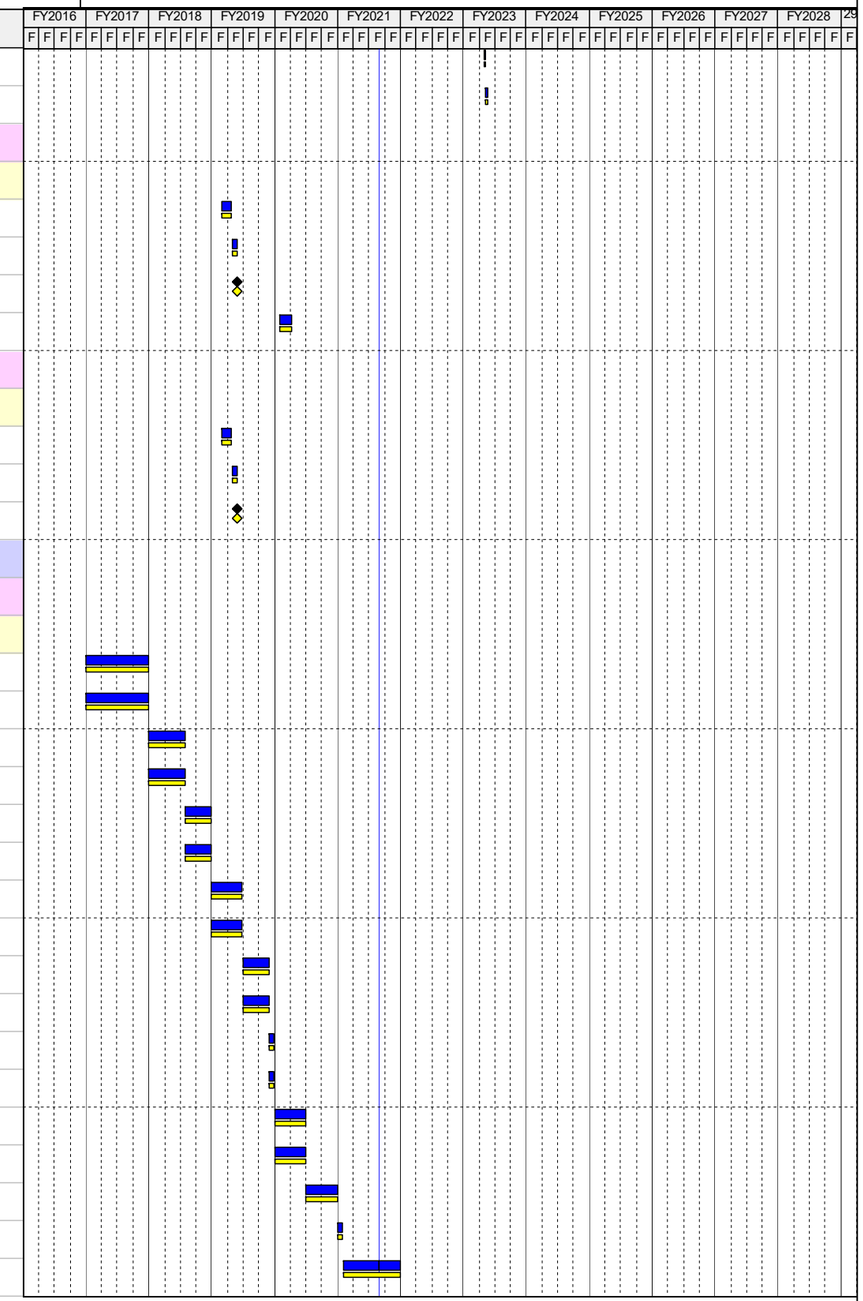
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P332D46	Write specifications for klystron magnet power supplies.	27-Oct-21	23-Nov-21	31-Aug-21	28-Sep-21	0%	20	$4,878	John Moss
P.03.03.02.03 Procure/Fab - Transmitters (NCL) - (NEP33230)		27-Oct-21	15-Dec-22	31-Aug-21	20-Sep-22		281	$182,493	
P332P11	Procure Three klystron filament power supplies.	27-Oct-21	16-Nov-21	31-Aug-21	21-Sep-21	0%	15	$1,701	John Moss
P332P09	Fabrication Three klystron filament power supplies	17-Nov-21	22-Mar-22	22-Sep-21	25-Jan-22	0%	80	$0	John Moss
P332P51	Procure Six (2 per klystron) magnet power supplies.	24-Nov-21	16-Dec-21	29-Sep-21	19-Oct-21	0%	15	$1,701	John Moss
P332P53	Fabrication of Six (2 per klystron) magnet power supplies	17-Dec-21	20-Apr-22	20-Oct-21	22-Feb-22	0%	80	$0	John Moss
P332MS73	Fabrication of Three klystron filament power supplies Complete (MS)		22-Mar-22		25-Jan-22	0%	0	$0	John Moss
P332P16	Receive, test, and store Three klystron filament power supplies.	23-Mar-22	12-Apr-22	26-Jan-22	15-Feb-22	0%	15	$57,336	John Moss
P332MS63	Fabrication of Six (2 per klystron) magnet power supplies Complete (MS)		20-Apr-22		22-Feb-22	0%	0	$0	John Moss
P332P56	Receive, test, and store Six (2 per klystron) magnet power supplies.	21-Apr-22	11-May-22	23-Feb-22	15-Mar-22	0%	15	$100,173	John Moss
P332P21	Test three klystron filament power supplies as part of klystron site acceptance test.	02-Dec-22	08-Dec-22	07-Sep-22	13-Sep-22	0%	5	$6,136	John Moss
P332P61	Test six (2 per klystron) magnet power supplies as part of klystron site acceptance test.	02-Dec-22	15-Dec-22	07-Sep-22	20-Sep-22	0%	10	$15,446	John Moss
P.03.03.02.04 Installation - Transmitters (NCL)		22-Feb-23	07-Mar-23	22-Feb-23	07-Mar-23		10	$13,014	
P332I71	Install six (2 per Klystron) magnet power supplies into transmitters DTL-3, 4, and 5	22-Feb-23	28-Feb-23	22-Feb-23	28-Feb-23	0%	5	$8,676	John Moss
P332I91	Install three (1 per Klystron) klystron filament power supplies into transmitters for DTL-3, 4, and 5	01-Mar-23	07-Mar-23	01-Mar-23	07-Mar-23	0%	5	$4,338	John Moss
P.03.03.03 Klystrons (NCL)		01-Jun-18 A	21-Feb-23	01-Jun-18	21-Feb-23		425	$3,718,167	
P.03.03.03.02 Design - Klystrons (NCL) - (NEP33320)		01-Jun-18 A	30-Aug-21	01-Jun-18	02-Jul-21		64	$683,970	
P333D1	Write specifications and statement of work for 3MW klystrons.	01-Jun-18 A	31-Aug-18 A	01-Jun-18	31-Aug-18	100%	0	$0	John Moss
P333MS001	Complete 3 MW klystron bid package		31-Aug-18 A		31-Aug-18	100%	0	$0	John Moss
P333D09	Solicit Bids, Evaluate, and Award Design and Fabrication of 3MW Klystron Test Article - Part 1	07-Sep-18 A	28-Sep-18 A	07-Sep-18	28-Sep-18	100%	0	$0	John Moss
P333D9	Solicit Bids, Evaluate, and Award Design and Fabrication of 3MW Klystron Test Article - Continued from 50%	01-Oct-18 A	28-Jan-19 A	01-Oct-18	28-Jan-19	100%	0	$0	John Moss
P333MS005	Award Contract for 3MW Klystron - Design and Fabrication of Test Article		28-Jan-19 A		28-Jan-19	100%	0	$0	John Moss
P333D10	Design, Fabricate and Receive 3MW Klystron Test Article	29-Jan-19 A	29-Mar-19 A	29-Jan-19	29-Mar-19	100%	0	$0	John Moss
P333D10B	3MW Kystron Test Article - Preliminary Design	01-Apr-19 A	23-Jul-19 A	01-Apr-19	23-Jul-19	100%	0	$0	John Moss
P333D200	Preliminary Design Review (PDR) - Milestone Payment	24-Jul-19 A	24-Jul-19 A	24-Jul-19	24-Jul-19	100%	0	$0	John Moss
P333D205	3MW Kystron Test Article - Final Design & Start Drawing Package	25-Jul-19 A	30-Aug-19 A	25-Jul-19	30-Aug-19	100%	0	$0	John Moss
P333D205B	3MW Kystron Test Article - Final Design & Start Drawing Package Continued)	03-Sep-19 A	09-Oct-19 A	03-Sep-19	09-Oct-19	100%	0	$0	John Moss
P333D210	Final Design Review (FDR) - Milestone Payment #3	09-Oct-19 A	09-Oct-19 A	09-Oct-19	09-Oct-19	100%	0	$0	John Moss
P333D215	3MW Kystron Test Article - Finish Drawing Package & Order Long Lead Procurements	10-Oct-19 A	31-Mar-20 A	10-Oct-19	31-Mar-20	100%	0	$0	John Moss
P333D280	3MW Klystron Test Article Fabrication Oversight (LOE) Part 1 (Apr20 - Oct20)	01-Apr-20 A	30-Oct-20 A	01-Apr-20	30-Oct-20	100%	0	$0	John Moss
P333D215a	3MW Kystron Test Article - Finish Drawing Package & Order Long Lead Procurements (Apr20>)	01-Apr-20 A	28-May-20 A	01-Apr-20	28-May-20	100%	0	$0	John Moss
P333D220	Upon order of long lead material - Milestone Payment #4	29-May-20 A	29-May-20 A	29-May-20	29-May-20	100%	0	$0	John Moss
P333D225	3MW Klystron Test Article - Parts & Assemblies Procurements	01-Jun-20 A	23-Oct-20 A	01-Jun-20	23-Oct-20	100%	0	$0	John Moss



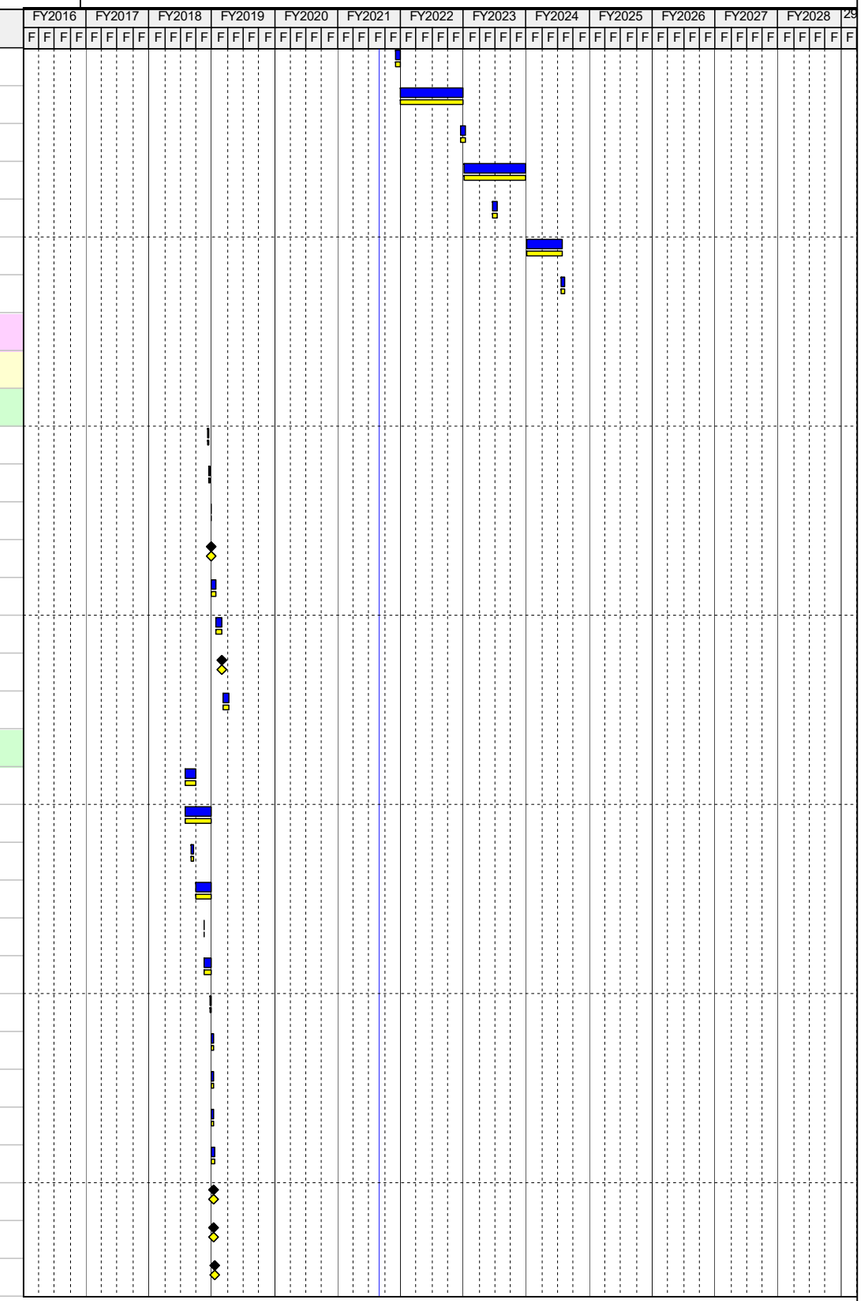
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P333D230	Complete order of parts & assemblies - Milestone Payment #1	26-Oct-20 A	26-Oct-20 A	26-Oct-20	26-Oct-20	100%	0	$0	John Moss
P333D235	3MW Klystron Test Article - Receipt Processing & Production	02-Nov-20 A	30-Jul-21	02-Nov-20	28-May-21	73%	43	$0	John Moss
P333D280a	3MW Klystron Test Article Fabrication Oversight (LOE) Part 2 (Nov20 - Mar20)	02-Nov-20 A	31-Mar-21 A	02-Nov-20	31-Mar-21	100%	0	$12,144	John Moss
P333D96	Attend Factory Acceptance Test of Test Article	26-Jul-21	30-Jul-21	25-May-21	01-Jun-21	0%	5	$29,993	John Moss
P333D245	FAT - Milestone Payment #5	02-Aug-21	02-Aug-21	01-Jun-21	01-Jun-21	0%	1	$156,936	John Moss
P333D250	3MW Klystron Test Article - Inspection & Shipping	03-Aug-21	18-Aug-21	02-Jun-21	22-Jun-21	0%	12	$0	John Moss
P333MS002	Receive 3MW Klystron Test Article (MS)		18-Aug-21		22-Jun-21	0%	0	$0	John Moss
P333D86	Conduct Site Acceptance Test for 3MW Klystrons test article in RFTF	19-Aug-21	30-Aug-21	23-Jun-21	02-Jul-21	0%	8	$14,086	John Moss
P333D270	SAT - Milestone Payment #6	30-Aug-21	30-Aug-21	02-Jul-21	02-Jul-21	0%	1	$470,810	John Moss
P.03.03.03.03	Procure/Fab - Klystrons (NCL) - (NEP33330)	19-Aug-21	12-Jan-23	25-May-21	21-Nov-22		342	$2,998,307	
P333P6	Process Procurment and Award Option for 3 3MW klystrons	19-Aug-21	16-Sep-21	25-May-21	22-Jun-21	0%	20	$2,216	John Moss
P333MS006	Contract for Remaining 3MW klystrons awarded (MS)		16-Sep-21		22-Jun-21	0%	0	$0	John Moss
P333P106	Vendor Mobilization and Documentation Period	17-Sep-21	14-Oct-21	23-Jun-21	21-Jul-21	0%	20	$0	John Moss
P333P11	Procurement of Material Lead-up	15-Oct-21	13-Dec-21	22-Jul-21	16-Sep-21	0%	40	$0	John Moss
P333P12	Oversight of Fabrication of Three 3MW Klystrons FY21 (LOE)	15-Oct-21	11-Oct-22	22-Jul-21	18-Jul-22	0%	244	$38,338	John Moss
P333P76	Payment Milestone 1 Upon Procurement of Material	14-Dec-21	14-Dec-21	17-Sep-21	17-Sep-21	0%	1	$720,467	John Moss
P333P116	Critical Design Review Lead-up	15-Dec-21	21-Jan-22	20-Sep-21	15-Oct-21	0%	20	$0	John Moss
P333P126	Payment Milestone 2 Completion of Critical Design Review	24-Jan-22	24-Jan-22	18-Oct-21	18-Oct-21	0%	1	$432,280	John Moss
P333P136	Final Design Review Lead-up	25-Jan-22	21-Feb-22	19-Oct-21	15-Nov-21	0%	20	$0	John Moss
P333P146	Payment Milestone 3 Completion of Final Design Review	22-Feb-22	22-Feb-22	16-Nov-21	16-Nov-21	0%	1	$288,186	John Moss
P333P196	Order Long Lead Materials Lead-up	23-Feb-22	22-Mar-22	17-Nov-21	16-Dec-21	0%	20	$0	John Moss
P333P156	Payment Milestone 4 Upon Order of Long Lead Materials	23-Mar-22	29-Mar-22	17-Dec-21	03-Jan-22	0%	5	$288,186	John Moss
P333P56	Fabrication of Three 3MW Klystrons	30-Mar-22	14-Nov-22	04-Jan-22	19-Aug-22	0%	160	$0	John Moss
P333P226	Oversight of Fabrication of Three 3MW Klystrons FY22 (LOE)	12-Oct-22	12-Jan-23	19-Jul-22	21-Nov-22	0%	58	$13,350	John Moss
P333P16	Attend Factory Acceptance Test of three 3 MW klystrons.	01-Nov-22	14-Nov-22	08-Aug-22	19-Aug-22	0%	10	$20,186	John Moss
P333P166	Payment Milestone 5 Completion of FAT	15-Nov-22	15-Nov-22	22-Aug-22	22-Aug-22	0%	1	$293,573	John Moss
P333P186	Shipment Period	16-Nov-22	01-Dec-22	23-Aug-22	06-Sep-22	0%	10	$0	John Moss
P333P21	Receive Three 3MW klystrons (MS)		01-Dec-22		06-Sep-22	0%	0	$0	John Moss
P333P26	Conduct site acceptance test for three 3MW klystrons in the RFTF	02-Dec-22	09-Jan-23	07-Sep-22	01-Nov-22	0%	20	$15,086	John Moss
P333P206	Payment Milestone 6 Completion of SAT	10-Jan-23	10-Jan-23	02-Nov-22	02-Nov-22	0%	1	$880,720	John Moss
P333P216	Store Three 3MW klystrons in the Gallery	10-Jan-23	12-Jan-23	02-Nov-22	04-Nov-22	0%	3	$5,718	John Moss
P.03.03.03.04	Installation - Klystrons (NCL)	31-Jan-23	21-Feb-23	31-Jan-23	21-Feb-23		16	$35,890	
P333i61	Stage three 3MW klystrons for installation	31-Jan-23	31-Jan-23	31-Jan-23	31-Jan-23	0%	1	$1,906	John Moss



Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P333I41	Install one 3MW klystron into klystron gallery for DTL3	01-Feb-23	07-Feb-23	01-Feb-23	07-Feb-23	0%	5	$16,992	John Moss
P333I71	Install two 3MW klystron into klystron gallery for DTL4 and DTL5	08-Feb-23	21-Feb-23	08-Feb-23	21-Feb-23	0%	10	$16,992	John Moss
P.03.03.04 Circulators (NCL)		29-Nov-18 A	09-Jan-20 A	29-Nov-18	09-Jan-20		0	$0	
P.03.03.04.02 Design - Circulators (NCL) - (NEP33420)		29-Nov-18 A	09-Jan-20 A	29-Nov-18	09-Jan-20		0	$0	
P334D1	Write specifications and statement of work for 3MW circulators.	29-Nov-18 A	25-Jan-19 A	29-Nov-18	25-Jan-19	100%	0	$0	John Moss
P334D11	Spec Review for 3MW Circulators for FDR	28-Jan-19 A	27-Feb-19 A	28-Jan-19	27-Feb-19	100%	0	$0	John Moss
P334MS005	Complete 3MW Circulators Bid Package		27-Feb-19 A		27-Feb-19	100%	0	$0	John Moss
P334D001	Investigate Need for new 3MW Circulators	01-Nov-19 A	09-Jan-20 A	01-Nov-19	09-Jan-20	100%	0	$0	John Moss
P.03.03.05 Glycol/Water Loads (NCL)		29-Nov-18 A	27-Feb-19 A	29-Nov-18	27-Feb-19		0	$0	
P.03.03.05.02 Design - Glycol/Water Loads (NCL) - (NEP33520)		29-Nov-18 A	27-Feb-19 A	29-Nov-18	27-Feb-19		0	$0	
P335D1	Write specifications and statement of work for 3MW loads.	29-Nov-18 A	25-Jan-19 A	29-Nov-18	25-Jan-19	100%	0	$0	John Moss
P335D11	Spec Review and PRR for 3MW Loads	28-Jan-19 A	27-Feb-19 A	28-Jan-19	27-Feb-19	100%	0	$0	John Moss
P335MS21	Complete 3MW Loads Bid Package		27-Feb-19 A		27-Feb-19	100%	0	$0	John Moss
P.03.04 LLRF		03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		730	$3,045,998	
P.03.04.01 Management and System Integration - LLRF		03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		730	$226,633	
P.03.04.01.01 Management and System Integration - LLRF - (NEP34110)		03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		730	$226,633	
P341M000	P.3.4.4 CAM management FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Mark Crofford
P341M1	WBS Management P.3.4 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Mark Crofford
P341M4	WBS Management P.3.4 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Mark Crofford
P341M005	P.3.4.4 CAM management FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Mark Crofford
P341M6	WBS Management P.3.4 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Mark Crofford
P341M010	P.3.4.4 CAM management FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Mark Crofford
P341M11	WBS Management P.3.4 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Mark Crofford
P341M015	P.3.4.4 CAM management FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Mark Crofford
P341M015B	P.3.4.4 CAM management FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Mark Crofford
P341M11B	WBS Management P.3.4 FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Mark Crofford
P341M015C	P.3.4.4 CAM management FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Mark Crofford
P341M11C	WBS Management P.3.4 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Mark Crofford
P341M16	WBS Management P.3.4 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Mark Crofford
P341M020	P.3.4.4 CAM management FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Mark Crofford
P341M16a	WBS Management P.3.4 FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Mark Crofford
P341M21	WBS Management P.3.4 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Mark Crofford
P341M21a	WBS Management P.3.4 FY21 (LOE) Part 2 (Nov20 - Sep21)	02-Nov-20 A	30-Sep-21	02-Nov-20	30-Sep-21	61.26%	86	$66,643	Mark Crofford

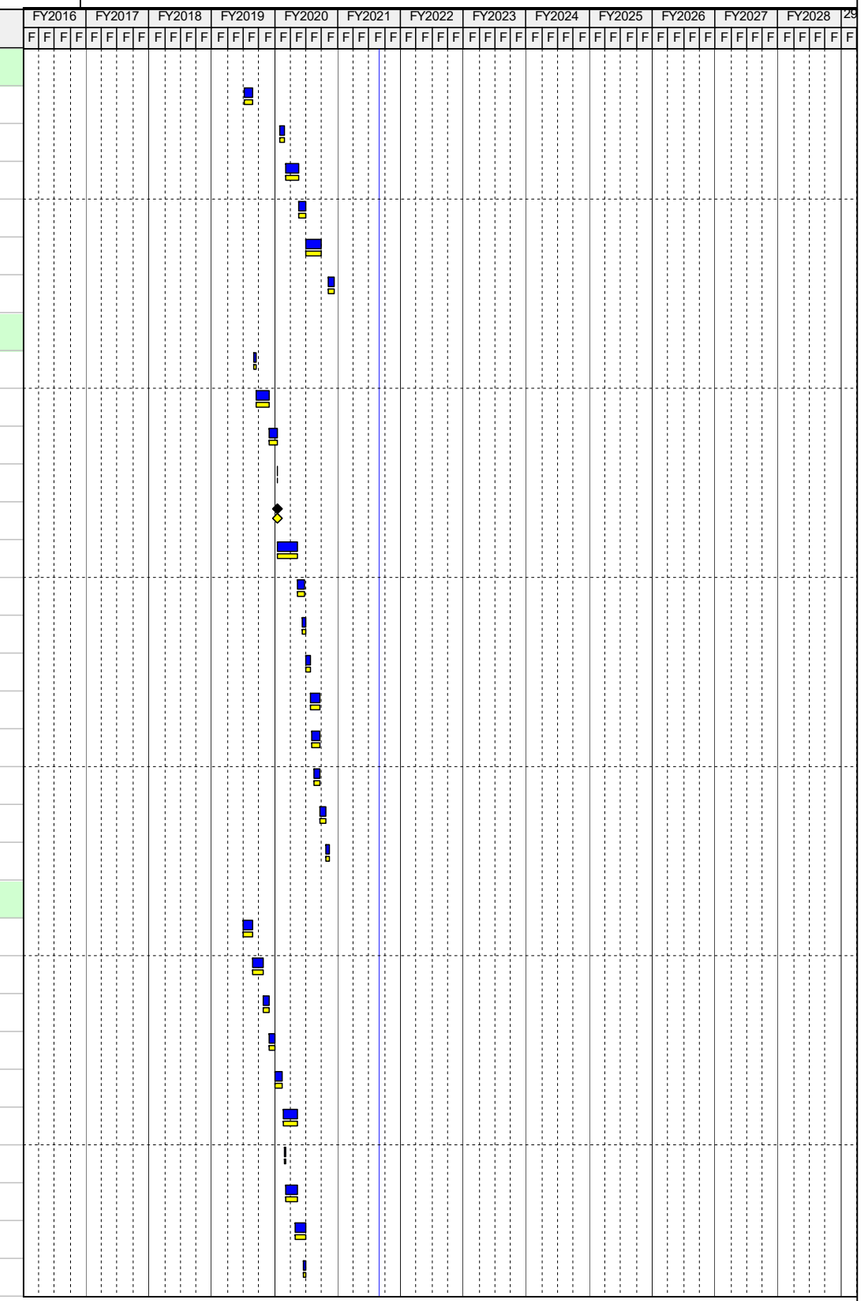


Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P341M23	WBS Management P.3.4 FY21 (LOE) Travel	01-Sep-21	30-Sep-21	01-Sep-21	30-Sep-21	0%	21	$10,500	Mark Crofford
P341M26	WBS Management P.3.4 FY22 (LOE)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$49,648	Mark Crofford
P341M003	P.3.4 Organize and Verify Documentation for Phase 1 ARR	13-Sep-22	10-Oct-22	13-Sep-22	10-Oct-22	0%	20	$11,401	Mark Crofford
P341M31	WBS Management P.3.4 FY23 (LOE)	03-Oct-22	29-Sep-23	03-Oct-22	29-Sep-23	0%	245	$41,819	Mark Crofford
P341M002	P.3.4 Organize and Verify Documentation for Phase 2 ARR	16-Mar-23	13-Apr-23	16-Mar-23	13-Apr-23	0%	20	$11,713	Mark Crofford
P341M41	WBS Management P.3.4 FY24 (LOE)	02-Oct-23	24-Apr-24	02-Oct-23	24-Apr-24	0%	138	$22,732	Mark Crofford
P341M001	P.3.4 Organize and Verify Documentation for Phase 3 ARR	17-Apr-24	14-May-24	17-Apr-24	14-May-24	0%	20	$12,178	Mark Crofford
P.03.04.02 LLRF System		01-May-18 A	23-Apr-24	01-May-18	23-Apr-24		715	$2,090,038	
P.03.04.02.02 Design - LLRF System - (NEP34220)		01-May-18 A	02-Nov-21	01-May-18	02-Nov-21		109	$557,614	
P.03.04.02.02.02 Design test article of HPM-II RTM		05-Sep-18 A	09-Jan-19 A	05-Sep-18	09-Jan-19		0	$0	
P342D46	create block design of HPM-II RTM	05-Sep-18 A	11-Sep-18 A	05-Sep-18	11-Sep-18	100%	0	$0	Mark Crofford
P342D150	schematic capture of HPM-II RTM	12-Sep-18 A	25-Sep-18 A	12-Sep-18	25-Sep-18	100%	0	$0	Mark Crofford
P342D155	Conduct schematic review of HPM-II RTM	26-Sep-18 A	28-Sep-18 A	26-Sep-18	28-Sep-18	100%	0	$0	Mark Crofford
P342MS030	HPM-II schematic review complete		28-Sep-18 A		28-Sep-18	100%	0	$0	Mark Crofford
P342D160	layout design of HPM-II RTM	01-Oct-18 A	26-Oct-18 A	01-Oct-18	26-Oct-18	100%	0	$0	Mark Crofford
P342D015	Procure & receive test article of HPM-II RTM	29-Oct-18 A	30-Nov-18 A	29-Oct-18	30-Nov-18	100%	0	$0	Mark Crofford
P342MS040	HPM-II RTM Test Article Received		30-Nov-18 A		30-Nov-18	100%	0	$0	Mark Crofford
P342D165	write test firmware for HPM-II RTM (See P.3.8.2.2 for S/W)	04-Dec-18 A	09-Jan-19 A	04-Dec-18	09-Jan-19	100%	0	$0	Mark Crofford
P.03.04.02.02.01 General		01-May-18 A	30-Sep-21	01-May-18	30-Sep-21		86	$255,000	
P342D11	Generate FCM-II specification	01-May-18 A	29-Jun-18 A	01-May-18	29-Jun-18	100%	0	$0	Mark Crofford
P342D000	Research LLRF Platforms Alternatives (includes procurements) (See P.3.8.2.2 for S/W) - Part 1	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Mark Crofford
P342D100	Generate HPM-II specification	01-Jun-18 A	18-Jun-18 A	01-Jun-18	18-Jun-18	100%	0	$0	Mark Crofford
P342D86	Generate Frequency Conversion Chassis Specification - Part 1	02-Jul-18 A	28-Sep-18 A	02-Jul-18	28-Sep-18	100%	0	$0	Mark Crofford
P342D110	Receive platform components	20-Aug-18 A	20-Aug-18 A	20-Aug-18	20-Aug-18	100%	0	$0	Mark Crofford
P342D16	Generate Interface Documents - LLRF system - Part 1	21-Aug-18 A	28-Sep-18 A	21-Aug-18	28-Sep-18	100%	0	$0	Mark Crofford
P342D005	Setup test area in LLRF Lab to support development (See P.3.8.2.2 for S/W) - Part 1	24-Sep-18 A	28-Sep-18 A	24-Sep-18	28-Sep-18	100%	0	$0	Mark Crofford
P342D000B	Research LLRF Platforms Alternatives (includes procurements) (See P.3.8.2.2 for S/W) - Continued 25%	01-Oct-18 A	15-Oct-18 A	01-Oct-18	15-Oct-18	100%	0	$0	Mark Crofford
P342D86B	Generate Frequency Conversion Chassis Specification - Continued 95%	01-Oct-18 A	12-Oct-18 A	01-Oct-18	12-Oct-18	100%	0	$0	Mark Crofford
P342D16B	Generate Interface Documents - LLRF system - Continued 20%	01-Oct-18 A	12-Oct-18 A	01-Oct-18	12-Oct-18	100%	0	$0	Mark Crofford
P342D005B	Setup test area in LLRF Lab to support development (See P.3.8.2.2 for S/W) - Continued 80%	01-Oct-18 A	16-Oct-18 A	01-Oct-18	16-Oct-18	100%	0	$0	Mark Crofford
P342MS025	Complete specification/requirements document for Frequency Conversion Chassis		12-Oct-18 A		12-Oct-18	100%	0	$0	Mark Crofford
P342MS010	Generation of Interface Documents for LLRF system Completed.		12-Oct-18 A		12-Oct-18	100%	0	$0	Mark Crofford
P342MS005	Development platform received and LLRF Lab test area setup completed		16-Oct-18 A		16-Oct-18	100%	0	$0	Mark Crofford

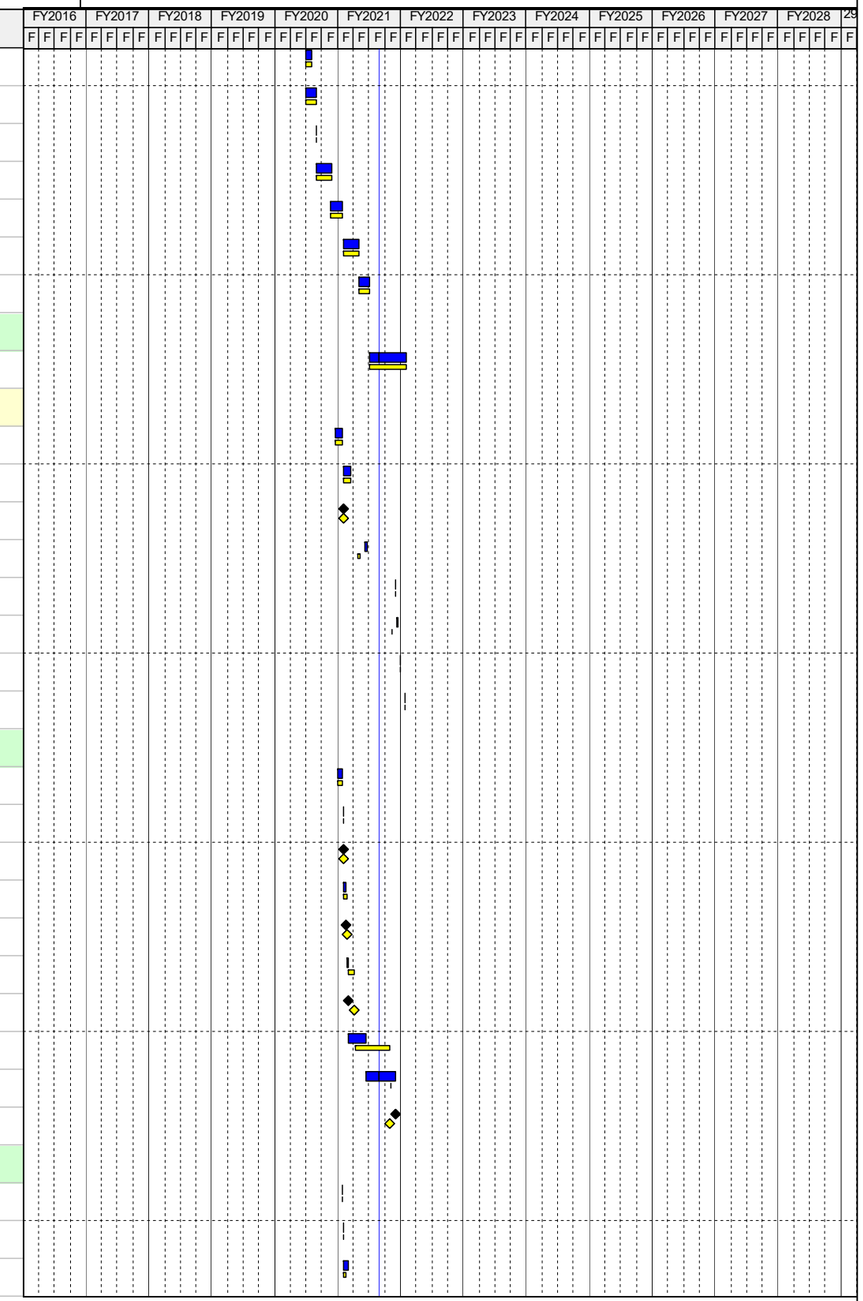


Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P342D120	LBNL LLRF Colaboration Kick-off Meeting	05-Nov-18 A	06-Nov-18 A	05-Nov-18	06-Nov-18	100%	0	$0	Mark Crofford
P342MS015	Finalize decision on vendor (VadaTech or Struck) for digitizer/carrier card for LLRF development		14-Nov-18 A		14-Nov-18	100%	0	$0	Mark Crofford
P342D170	test, iterate, rework of the HPM-II RTM (See P.3.8.2.2 for S/W)	10-Jan-19 A	29-Mar-19 A	10-Jan-19	29-Mar-19	100%	0	$0	Mark Crofford
P342D105	Generate Software Requirements Document (See P.3.8.2.2 for S/W)	30-Jan-19 A	29-Mar-19 A	30-Jan-19	29-Mar-19	100%	0	$0	Mark Crofford
P342D105b	Generate Software Requirements Document (See P.3.8.2.2 for S/W) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Mark Crofford
P342D170b	test, iterate, rework of the HPM-II RTM (See P.3.8.2.2 for S/W) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Mark Crofford
P342D80	Prep for LLRF Preliminary Design Review (PDR) (See P.3.8.2.2 for S/W) (with LBNL Support)	06-May-19 A	17-May-19 A	06-May-19	17-May-19	100%	0	$0	Mark Crofford
P342D81	P.3.4 LLRF Preliminary Design Review (PDR) (See P.3.8.2.2 for S/W) (with LBNL Support)	22-May-19 A	23-May-19 A	22-May-19	23-May-19	100%	0	$0	Mark Crofford
P342MS101	LLRF Preliminary Design Review Completed		23-May-19 A		23-May-19	100%	0	$0	Mark Crofford
P342D105c	Generate Software Requirements Document (See P.3.8.2.2 for S/W) - Continued 2	03-Sep-19 A	13-Jan-20 A	03-Sep-19	13-Jan-20	100%	0	$0	Mark Crofford
P342D320	Remaining LBNL LLRF Design Support (Initial Contract) (Sep19 - Oct19) (LOE)	03-Sep-19 A	31-Oct-19 A	03-Sep-19	31-Oct-19	100%	0	$0	Mark Crofford
P342D330	Extended LBNL LLRF Design Support (Nov 19 - Mar 20) (LOE)	01-Nov-19 A	31-Mar-20 A	01-Nov-19	31-Mar-20	100%	0	$0	Mark Crofford
P342D370	Extended LBNL LLRF Design Support (Apr 20 - Oct 20) (LOE) - Continued	01-Apr-20 A	30-Oct-20 A	01-Apr-20	30-Oct-20	100%	0	$0	Mark Crofford
P342D90	Prep for LLRF Final Design Review (FDR) (See P.3.8.2.2 for S/W)	01-Sep-20 A	15-Sep-20 A	01-Sep-20	15-Sep-20	100%	0	$0	Mark Crofford
P342D91	P.3.4 LLRF Final Design review (FDR) (See P.3.8.2.2 for S/W)	16-Sep-20 A	17-Sep-20 A	16-Sep-20	17-Sep-20	100%	0	$0	Mark Crofford
P342D380	Extended FY21 LBNL LLRF Design Support (Nov 20 - Sep 21) (LOE)	02-Nov-20 A	30-Sep-21	02-Nov-20	30-Sep-21	61.26%	86	$255,000	Mark Crofford
P.03.04.02.02.03	Develop System Model	01-Nov-18 A	06-Jan-20 A	01-Nov-18	06-Jan-20		0	$0	
P342D098	Modify Existing LBNL Model to Contain SNS Parameters (with LBNL Support)	01-Nov-18 A	02-Jan-19 A	01-Nov-18	02-Jan-19	100%	0	$0	Mark Crofford
P342D080	Model Cavity Klystron and Controller (See P.3.8.2.2 for S/W) (with LBNL Support)	03-Jan-19 A	06-Mar-19 A	03-Jan-19	06-Mar-19	100%	0	$0	Mark Crofford
P342D090	Investigate Microphonics (with LBNL Support)	07-Mar-19 A	29-Mar-19 A	07-Mar-19	29-Mar-19	100%	0	$0	Mark Crofford
P342D090b	Investigate Microphonics (with LBNL Support) - Continued	01-Apr-19 A	09-Apr-19 A	01-Apr-19	09-Apr-19	100%	0	$0	Mark Crofford
P342D095	Model Software Based Adaptive Feed Forward (AFF) (with LBNL Support)	10-Apr-19 A	30-Aug-19 A	10-Apr-19	30-Aug-19	100%	0	$0	Mark Crofford
P342D095b	Model Software Based Adaptive Feed Forward (AFF) (with LBNL Support) - Continued	03-Sep-19 A	06-Jan-20 A	03-Sep-19	06-Jan-20	100%	0	$0	Mark Crofford
P.03.04.02.02.04	Design test article of FCM-II RTM	03-Dec-18 A	27-Nov-19 A	03-Dec-18	27-Nov-19		0	$0	
P342D21	create block design of FCM-II RTM	03-Dec-18 A	21-Dec-18 A	03-Dec-18	21-Dec-18	100%	0	$0	Mark Crofford
P342D31	Determine Clocking Frequency for the FCM-II (with LBNL Support)	03-Dec-18 A	11-Feb-19 A	03-Dec-18	11-Feb-19	100%	0	$0	Mark Crofford
P342D26	schematic capture of FCM-II RTM	12-Feb-19 A	21-Mar-19 A	12-Feb-19	21-Mar-19	100%	0	$0	Mark Crofford
P342D125	Conduct schematic review of FCM-II RTM	13-Mar-19 A	21-Mar-19 A	13-Mar-19	21-Mar-19	100%	0	$0	Mark Crofford
P342MS020	FCM-II RTM Schematic Review Complete		21-Mar-19 A		21-Mar-19	100%	0	$0	Mark Crofford
P342D130	layout design of FCM-II RTM	01-Apr-19 A	16-Apr-19 A	01-Apr-19	16-Apr-19	100%	0	$0	Mark Crofford
P342D95	Procure & receive test article of FCM-II RTM	17-Apr-19 A	25-Jun-19 A	17-Apr-19	25-Jun-19	100%	0	$0	Mark Crofford
P342D135	write test firmware for FCM-II RTM (See P.3.8.2.2 for S/W) (with LBNL Support)	01-Jul-19 A	30-Aug-19 A	01-Jul-19	30-Aug-19	100%	0	$0	Mark Crofford
P342D140	test, iterate, rework of the FCM-II RTM (See P.3.8.2.2 for S/W)	03-Sep-19 A	27-Nov-19 A	03-Sep-19	27-Nov-19	100%	0	$0	Mark Crofford

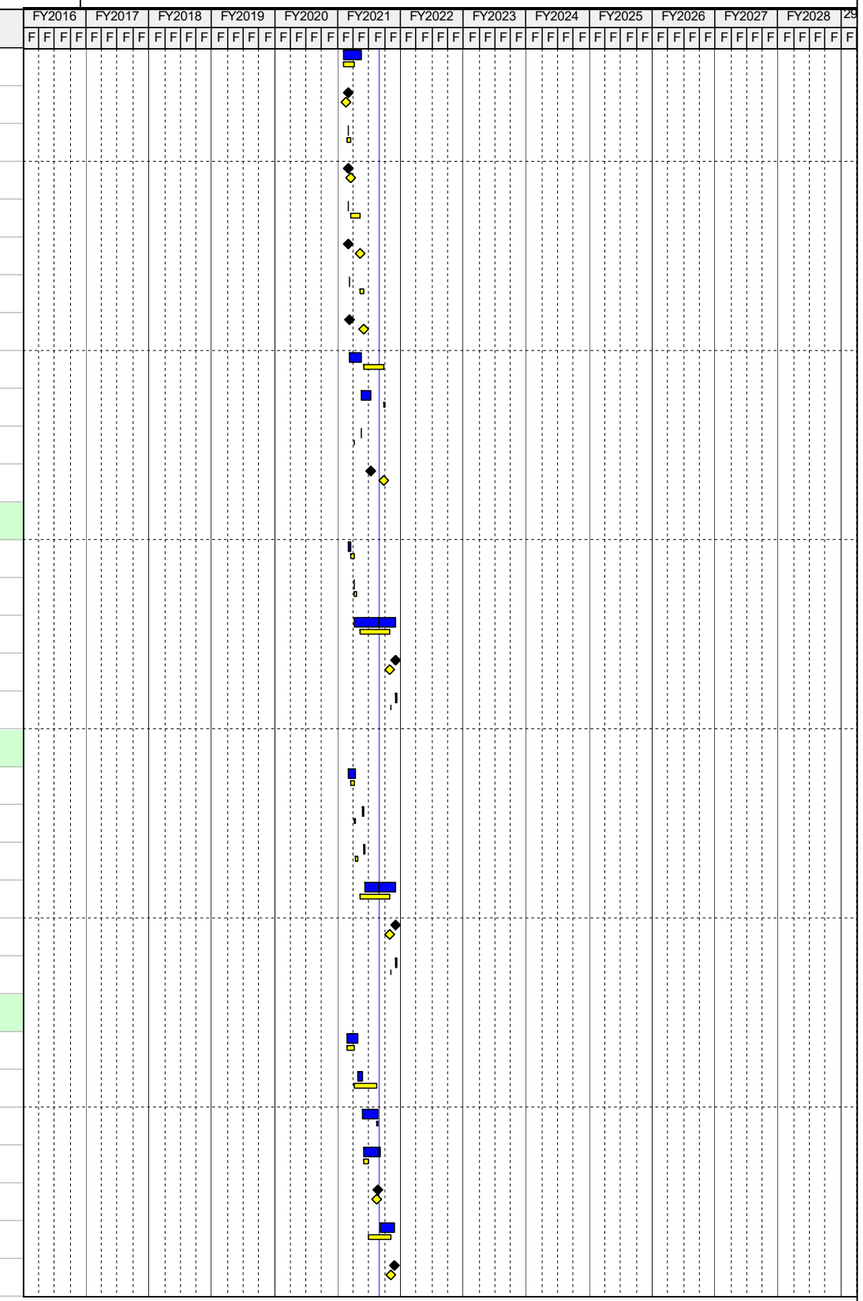
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P.03.04.02.02.05	Firmware Development HPM-II	11-Apr-19 A	11-Sep-20 A	11-Apr-19	11-Sep-20		0	$0	
P342D175	HPM-II functionality - Review Legacy Code and Create Mapping (See P.3.8.2.2 for S/W)	11-Apr-19 A	23-May-19 A	11-Apr-19	23-May-19	100%	0	$0	Mark Crofford
P342D180	HPM-II functionality - Define firmware block diagram & interfaces (See P.3.8.2.2 for S/W)	01-Nov-19 A	27-Nov-19 A	01-Nov-19	27-Nov-19	100%	0	$0	Mark Crofford
P342D185	HPM-II functionality - Design overall functions (See P.3.8.2.2 for S/W)	02-Dec-19 A	20-Feb-20 A	02-Dec-19	20-Feb-20	100%	0	$0	Mark Crofford
P342D340	HPM-II functionality - Iterate Protection Functions (See P.3.8.2.2 for S/W)	20-Feb-20 A	31-Mar-20 A	20-Feb-20	31-Mar-20	100%	0	$0	Mark Crofford
P342D340a	HPM-II functionality - Iterate Protection Functions (See P.3.8.2.2 for S/W) (Apr20>)	01-Apr-20 A	30-Jun-20 A	01-Apr-20	30-Jun-20	100%	0	$0	Mark Crofford
P342D190	HPM-II functionality - Validate HPM module (See P.3.8.2.2 for S/W)	07-Aug-20 A	11-Sep-20 A	07-Aug-20	11-Sep-20	100%	0	$0	Mark Crofford
P.03.04.02.02.06	Design test article Frequency Conversion Chassis (FCC)	03-Jun-19 A	12-Aug-20 A	03-Jun-19	12-Aug-20		0	$0	
P342D61	create block design of Frequency Conversion Chassis	03-Jun-19 A	14-Jun-19 A	03-Jun-19	14-Jun-19	100%	0	$0	Mark Crofford
P342D200	schematic capture of Frequency Conversion Chassis	17-Jun-19 A	30-Aug-19 A	17-Jun-19	30-Aug-19	100%	0	$0	Mark Crofford
P342D200b	schematic capture of Frequency Conversion Chassis - Continued	03-Sep-19 A	16-Oct-19 A	03-Sep-19	16-Oct-19	100%	0	$0	Mark Crofford
P342D205	Conduct schematic review of Frequency Conversion Chassis	17-Oct-19 A	17-Oct-19 A	17-Oct-19	17-Oct-19	100%	0	$0	Mark Crofford
P342MS210	Frequency Conversion Chassis schematic review complete (MS)		17-Oct-19 A		17-Oct-19	100%	0	$0	Mark Crofford
P342D215	layout design of Frequency Conversion Chassis boards	18-Oct-19 A	10-Feb-20 A	18-Oct-19	10-Feb-20	100%	0	$0	Mark Crofford
P342D71	Procure & receive test article of the Frequency Conversion Chassis (combined resources from old procure activities)	10-Feb-20 A	23-Mar-20 A	10-Feb-20	23-Mar-20	100%	0	$0	Mark Crofford
P342D220	test sub-assemblies of Frequency Conversion Chassis	10-Mar-20 A	31-Mar-20 A	10-Mar-20	31-Mar-20	100%	0	$0	Mark Crofford
P342D220a	test sub-assemblies of Frequency Conversion Chassis (Apr20>)	01-Apr-20 A	27-Apr-20 A	01-Apr-20	27-Apr-20	100%	0	$0	Mark Crofford
P342D350	Iterate Sub-assemblies of Frequency Conversion Chassis	28-Apr-20 A	22-Jun-20 A	28-Apr-20	22-Jun-20	100%	0	$0	Mark Crofford
P342D225	integrate sub-asseblies of Frequency Conversion Chassis	05-May-20 A	19-Jun-20 A	05-May-20	19-Jun-20	100%	0	$0	Mark Crofford
P342D230	design enclosure of Frequency Conversion Chassis	15-May-20 A	23-Jun-20 A	15-May-20	23-Jun-20	100%	0	$0	Mark Crofford
P342D235	procure enclosure & complete BOM for Frequency Conversion Chassis	24-Jun-20 A	22-Jul-20 A	24-Jun-20	22-Jul-20	100%	0	$0	Mark Crofford
P342D240	Final assembly & test of Frequency Conversion Chassis	23-Jul-20 A	12-Aug-20 A	23-Jul-20	12-Aug-20	100%	0	$0	Mark Crofford
P.03.04.02.02.07	Firmware Development for LLRF - basic functionality	01-Apr-19 A	07-Apr-21 A	01-Apr-19	07-Apr-21		0	$157,223	
P342D76	Review legacy FPGA code and create mapping (with LBNL Support)	01-Apr-19 A	28-May-19 A	01-Apr-19	28-May-19	100%	0	$0	Mark Crofford
P342D250	Define Firmware Block Diagram and define interfaces (Hardware/Software) (See P.3.8.2.2 for S/W) (with LBNL Support)	29-May-19 A	25-Jul-19 A	29-May-19	25-Jul-19	100%	0	$0	Mark Crofford
P342D255	Develop register interface and timing logic (See P.3.8.2.2 for S/W) (with LBNL Support)	26-Jul-19 A	30-Aug-19 A	26-Jul-19	30-Aug-19	100%	0	$0	Mark Crofford
P342D255c	Develop register interface and timing logic (See P.3.8.2.2 for S/W) (with LBNL Support) - Continued	03-Sep-19 A	04-Oct-19 A	03-Sep-19	04-Oct-19	100%	0	$0	Mark Crofford
P342D260	Develop Robust ADC Driver (See P.3.8.2.2 for S/W) (with LBNL Support)	07-Oct-19 A	15-Nov-19 A	07-Oct-19	15-Nov-19	100%	0	$0	Mark Crofford
P342D265	Integrate Firmware Modules (See P.3.8.2.2 for S/W) (with LBNL Support)	18-Nov-19 A	14-Feb-20 A	18-Nov-19	14-Feb-20	100%	0	$0	Mark Crofford
P342D285	Timing constraints and Closure OLD (See P.3.8.2.2 for S/W) (with LBNL Support)	25-Nov-19 A	06-Dec-19 A	25-Nov-19	06-Dec-19	100%	0	$0	Mark Crofford
P342D267	Demonstrate Open/Closed Loop Operation on Test Stand (See P.3.8.2.2 for S/W) (with LBNL Support)	06-Dec-19 A	10-Feb-20 A	06-Dec-19	10-Feb-20	100%	0	$0	Mark Crofford
P342D295	Merge HPM-II/FCM-II protection functions (See P.3.8.2.2 for S/W)	31-Jan-20 A	31-Mar-20 A	31-Jan-20	31-Mar-20	100%	0	$0	Mark Crofford
P342D275	Perform Integrated test on 23D (See P.3.8.2.2 for S/W)	16-Mar-20 A	31-Mar-20 A	16-Mar-20	31-Mar-20	100%	0	$0	Mark Crofford



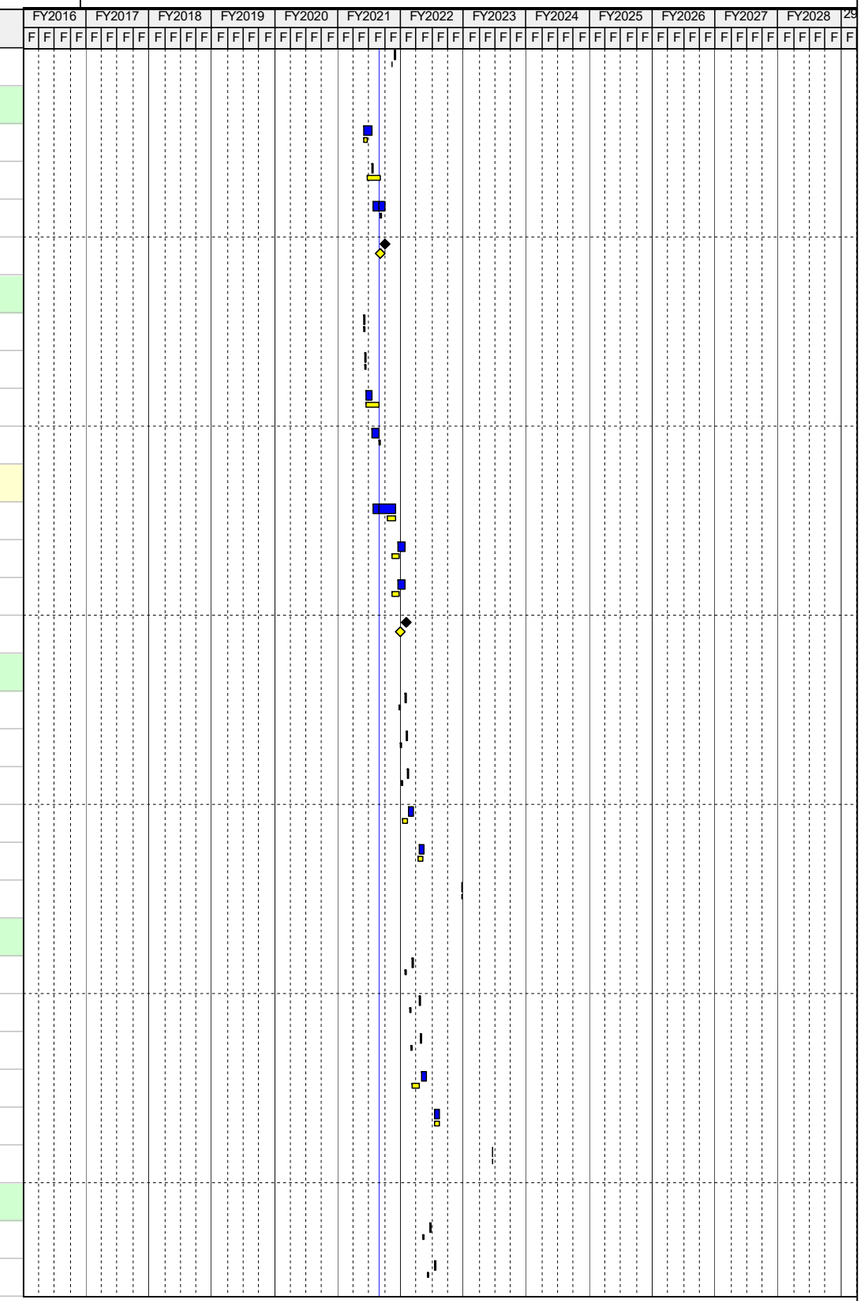
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P342D295a	Merge HPM-II/FCM-II protection functions (See P.3.8.2.2 for S/W) (Apr20>)	01-Apr-20 A	30-Apr-20 A	01-Apr-20	30-Apr-20	100%	0	$0	Mark Crofford
P342D275a	Perform Integrated test on 23D (See P.3.8.2.2 for S/W) (Apr20>) Part 1	01-Apr-20 A	01-Jun-20 A	01-Apr-20	01-Jun-20	100%	0	$0	Mark Crofford
P342D275b	Perform Integrated test on 23D (See P.3.8.2.2 for S/W) Adjustment Activity RF-2020-02	01-Jun-20 A	01-Jun-20 A	01-Jun-20	01-Jun-20	100%	0	$0	Mark Crofford
P342D275c	Perform Integrated test on 23D (See P.3.8.2.2 for S/W) (Jun20>) Part 2	01-Jun-20 A	31-Aug-20 A	01-Jun-20	31-Aug-20	100%	0	$0	Mark Crofford
P342D305	Iterate Firmware / Bug Fixes (Cycle 1) (See P.3.8.2.2 for S/W) (LOE)	19-Aug-20 A	30-Oct-20 A	19-Aug-20	30-Oct-20	100%	0	$0	Mark Crofford
P342D310	Iterate Firmware / Bug Fixes (Cycle 2) (See P.3.8.2.2 for S/W) (LOE)	02-Nov-20 A	01-Feb-21 A	02-Nov-20	01-Feb-21	100%	0	$77,337	Mark Crofford
P342D315	Iterate Firmware / Bug Fixes (Cycle 3) (See P.3.8.2.2 for S/W) (LOE)	02-Feb-21 A	07-Apr-21 A	02-Feb-21	07-Apr-21	100%	0	$79,886	Mark Crofford
P.03.04.02.02.08	Firmware Development for LLRF - advanced functionality	08-Apr-21 A	02-Nov-21	08-Apr-21	02-Nov-21		109	$145,391	
P342D360	Integrate Advanced Features into LLRF System (See P.3.8.2.2 for S/W) (LOE)	08-Apr-21 A	02-Nov-21	08-Apr-21	02-Nov-21	25.34%	109	$145,391	Mark Crofford
P.03.04.02.03	Procure/Fab - LLRF System - (NEP34230)	21-Sep-20 A	28-Oct-21	21-Sep-20	28-Oct-21		106	$1,235,505	
P342P91	Finalize Bill of Materials for LLRF boards - Part 1 (Thru Oct20)	21-Sep-20 A	30-Oct-20 A	21-Sep-20	30-Oct-20	100%	0	$0	Mark Crofford
P342P91a	Finalize Bill of Materials for LLRF boards - Part 2 (Nov20>)	02-Nov-20 A	15-Dec-20 A	02-Nov-20	15-Dec-20	100%	0	$9,181	Mark Crofford
P342P80	Mark Crofford provides Rack Requirements information to Barnett (MS)		02-Nov-20 A		02-Nov-20	100%	0	$0	Greg Norman
P342P126	Process vendor questions on all LLRF boards	08-Mar-21 A	19-Mar-21 A	28-Jan-21	10-Feb-21	100%	0	$1,806	Mark Crofford
P342P151	Deliver boards, etc to gallery for installation - after checkout is complete (Phase 1)	01-Sep-21	01-Sep-21	01-Sep-21	01-Sep-21	0%	1	$573	Mark Crofford
P342P146	Store boards, chassis, etc. - warehouse subassemblies before and after testing	10-Sep-21	13-Sep-21	10-Aug-21	11-Aug-21	0%	2	$2,294	Mark Crofford
P342P246	Deliver boards, etc to gallery for installation - after checkout is complete (Phase 2)	30-Sep-21	30-Sep-21	30-Sep-21	30-Sep-21	0%	1	$573	Mark Crofford
P342P251	Deliver boards, etc to gallery for installation - after checkout is complete (Phase 3)	28-Oct-21	28-Oct-21	28-Oct-21	28-Oct-21	0%	1	$595	Mark Crofford
P.03.04.02.03.01	LLRF Platform	01-Oct-20 A	01-Sep-21	01-Oct-20	09-Aug-21		66	$517,341	
P342P031	Prepare Sole Source justification for approved LLRF platform choice	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Mark Crofford
P342P051	Procurement Readiness Review (PRR) for approved LLRF platform choice	02-Nov-20 A	04-Nov-20 A	02-Nov-20	04-Nov-20	100%	0	$1,161	Mark Crofford
P342MS061	Technical Package to Procurement for approved LLRF platform choice (MS)		04-Nov-20 A		04-Nov-20	100%	0	$0	Mark Crofford
P342P071	Procurement Review and Bid fo approved LLRF platform choice	05-Nov-20 A	20-Nov-20 A	05-Nov-20	25-Nov-20	100%	0	$2,317	Mark Crofford
P342MS081	Procurement approval for sole source for approved LLRF platform choice (MS)		20-Nov-20 A		25-Nov-20	100%	0	$0	Mark Crofford
P342P31	Review and Award Contract for approved LLRF platform choice	23-Nov-20 A	30-Nov-20 A	30-Nov-20	08-Jan-21	100%	0	$18,512	Mark Crofford
P342MS36	Award Contract for approved LLRF platform choice (MS)		01-Dec-20 A		08-Jan-21	100%	0	$0	Mark Crofford
P342P40	Fabrication of LLRF Platform	02-Dec-20 A	15-Mar-21 A	11-Jan-21	02-Aug-21	100%	0	$0	Mark Crofford
P342P41	Receive and Inspect LLRF Platform	16-Mar-21 A	01-Sep-21	03-Aug-21	09-Aug-21	29%	66	$495,352	Mark Crofford
P342MS50	Fabrication of LLRF Platform Complete (MS)		01-Sep-21		02-Aug-21	0%	0	$0	Mark Crofford
P.03.04.02.03.02	Frequency Conversion Chassis	26-Oct-20 A	12-Apr-21 A	26-Oct-20	02-Jul-21		0	$253,956	
P342P106	Prepare SOW and Tech Spec for Frequency Conversion Chassis - Part 1 (thru Oct20)	26-Oct-20 A	30-Oct-20 A	26-Oct-20	30-Oct-20	100%	0	$0	Mark Crofford
P342P108	Procurement Readiness Review (PRR) for Frequency Conversion Chassis	02-Nov-20 A	06-Nov-20 A	02-Nov-20	06-Nov-20	100%	0	$929	Mark Crofford
P342P106a	Prepare SOW and Tech Spec for Frequency Conversion Chassis - Part 2 (Nov20>) includes sole source justification	02-Nov-20 A	30-Nov-20 A	02-Nov-20	20-Nov-20	100%	0	$1,598	Mark Crofford



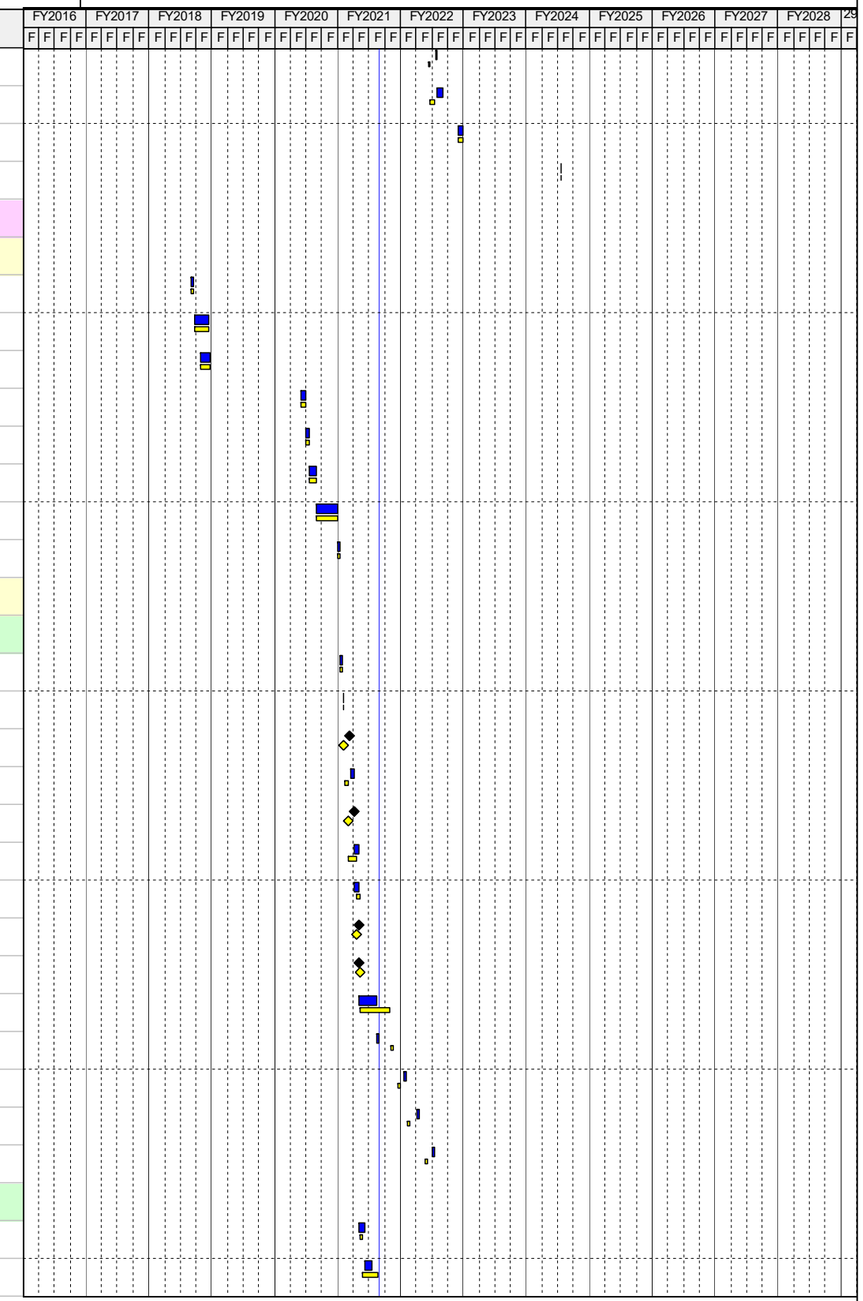
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P342P365	Fabrication of Band Pass Filters for FrCC chassis	02-Nov-20 A	16-Feb-21 A	02-Nov-20	04-Jan-21	100%	0	$0	Mark Crofford
P342MS156	Technical Package to Procurement for Frequency Conversion Chassis (MS)		01-Dec-20 A		20-Nov-20	100%	0	$0	Mark Crofford
P342P166	Procurement Review and Bid for Frequency Conversion Chassis	01-Dec-20 A	02-Dec-20 A	23-Nov-20	15-Dec-20	100%	0	$927	Mark Crofford
P342MS176	Issue RFP for Frequency Conversion Chassis (MS)		02-Dec-20 A		15-Dec-20	100%	0	$0	Mark Crofford
P342P186	Solicitation Period for Frequency Conversion Chassis	03-Dec-20 A	04-Dec-20 A	16-Dec-20	10-Feb-21	100%	0	$7,497	Mark Crofford
P342P226	Solicitation Complete for Frequency Conversion Chassis (MS)		04-Dec-20 A		10-Feb-21	100%	0	$0	Mark Crofford
P342P121	Review and Award Contract for Frequency Conversion Chassis	07-Dec-20 A	07-Dec-20 A	11-Feb-21	03-Mar-21	100%	0	$5,277	Mark Crofford
P342MS236	Award Contract for Frequency Conversion Chassis (MS)		07-Dec-20 A		03-Mar-21	100%	0	$0	Mark Crofford
P342P139	Fabrication of Frequency Conversion Chassis	08-Dec-20 A	17-Feb-21 A	04-Mar-21	25-Jun-21	100%	0	$0	Mark Crofford
P342P141	Receive and Inspect Frequency Conversion Chassis	17-Feb-21 A	12-Apr-21 A	28-Jun-21	02-Jul-21	100%	0	$220,256	Mark Crofford
P342P375	Receive Band Pass Filters for FrCC chassis	17-Feb-21 A	17-Feb-21 A	05-Jan-21	05-Jan-21	100%	0	$17,472	Mark Crofford
P342MS149	Fabrication of Frequency Conversion Chassis Complete (MS)		12-Apr-21 A		25-Jun-21	100%	0	$0	Mark Crofford
P.03.04.02.03.03	FCM-II RTM card	01-Dec-20 A	09-Sep-21	16-Dec-20	09-Aug-21		71	$116,220	
P342P96	Generate requisitions for FCM-II RTM card	01-Dec-20 A	18-Dec-20 A	16-Dec-20	05-Jan-21	100%	0	$3,196	Mark Crofford
P342P111	Procure FCM-II RTM card	04-Jan-21 A	06-Jan-21 A	06-Jan-21	20-Jan-21	100%	0	$1,974	Mark Crofford
P342P171	Fabrication of FCM-II RTM card	05-Jan-21 A	01-Sep-21	11-Feb-21	02-Aug-21	60%	66	$0	Mark Crofford
P342MS191	Fabrication Complete for FCM-II RTM card (MS)		01-Sep-21		02-Aug-21	0%	0	$0	Mark Crofford
P342P131	Receive and Inspect FCM-II RTM cards	02-Sep-21	09-Sep-21	03-Aug-21	09-Aug-21	0%	5	$111,050	Mark Crofford
P.03.04.02.03.04	HPM-II RTM card	01-Dec-20 A	09-Sep-21	16-Dec-20	09-Aug-21		71	$118,304	
P342P098	Prepare SOW and Tech Spec for HPM-II RTM card	01-Dec-20 A	13-Jan-21 A	16-Dec-20	05-Jan-21	100%	0	$2,499	Mark Crofford
P342P101	Generate requisitions for HPM-II RTM card	22-Feb-21 A	01-Mar-21 A	06-Jan-21	12-Jan-21	100%	0	$2,557	Mark Crofford
P342P116	Procure HPM-II RTM card	01-Mar-21 A	08-Mar-21 A	13-Jan-21	27-Jan-21	100%	0	$1,907	Mark Crofford
P342P191	Fabrication of HPM-II RTM card	08-Mar-21 A	01-Sep-21	11-Feb-21	02-Aug-21	20%	66	$0	Mark Crofford
P342MS192	Fabrication Complete for HPM-II RTM Card (MS)		01-Sep-21		02-Aug-21	0%	0	$0	Mark Crofford
P342P136	Receive and Inspect HPM-II RTM cards	02-Sep-21	09-Sep-21	03-Aug-21	09-Aug-21	0%	5	$111,341	Mark Crofford
P.03.04.02.03.05	Assorted RF Components	23-Nov-20 A	31-Aug-21	23-Nov-20	16-Aug-21		65	$115,645	
P342P211	Procure assorted Long Lead RF components (attenuators, filters, splitters, power conditioner, etc.)	23-Nov-20 A	27-Jan-21 A	23-Nov-20	05-Jan-21	100%	0	$8,731	Mark Crofford
P342P315	Fabrication of assorted Long Lead RF components	27-Jan-21 A	24-Feb-21 A	06-Jan-21	13-May-21	100%	0	$0	Mark Crofford
P342P214	Receipt of assorted Long Lead RF Components	25-Feb-21 A	20-May-21 A	14-May-21	20-May-21	100%	0	$71,525	Mark Crofford
P342P325	Procure Remaining RF components (attenuators, filters, splitters, power conditioner, etc.)	04-Mar-21 A	04-Jun-21	04-Mar-21	31-Mar-21	95%	4	$8,489	Mark Crofford
P342P216	Fabrication of assorted Long Lead RF components Complete (MS)		21-May-21 A		13-May-21	100%	0	$0	Mark Crofford
P342P335	Fabrication of Remaining RF components	07-Jun-21	24-Aug-21	01-Apr-21	09-Aug-21	0%	56	$0	Mark Crofford
P342P345	Fabrication of Remaining RF components Complete (MS)		24-Aug-21		09-Aug-21	0%	0	$0	Mark Crofford



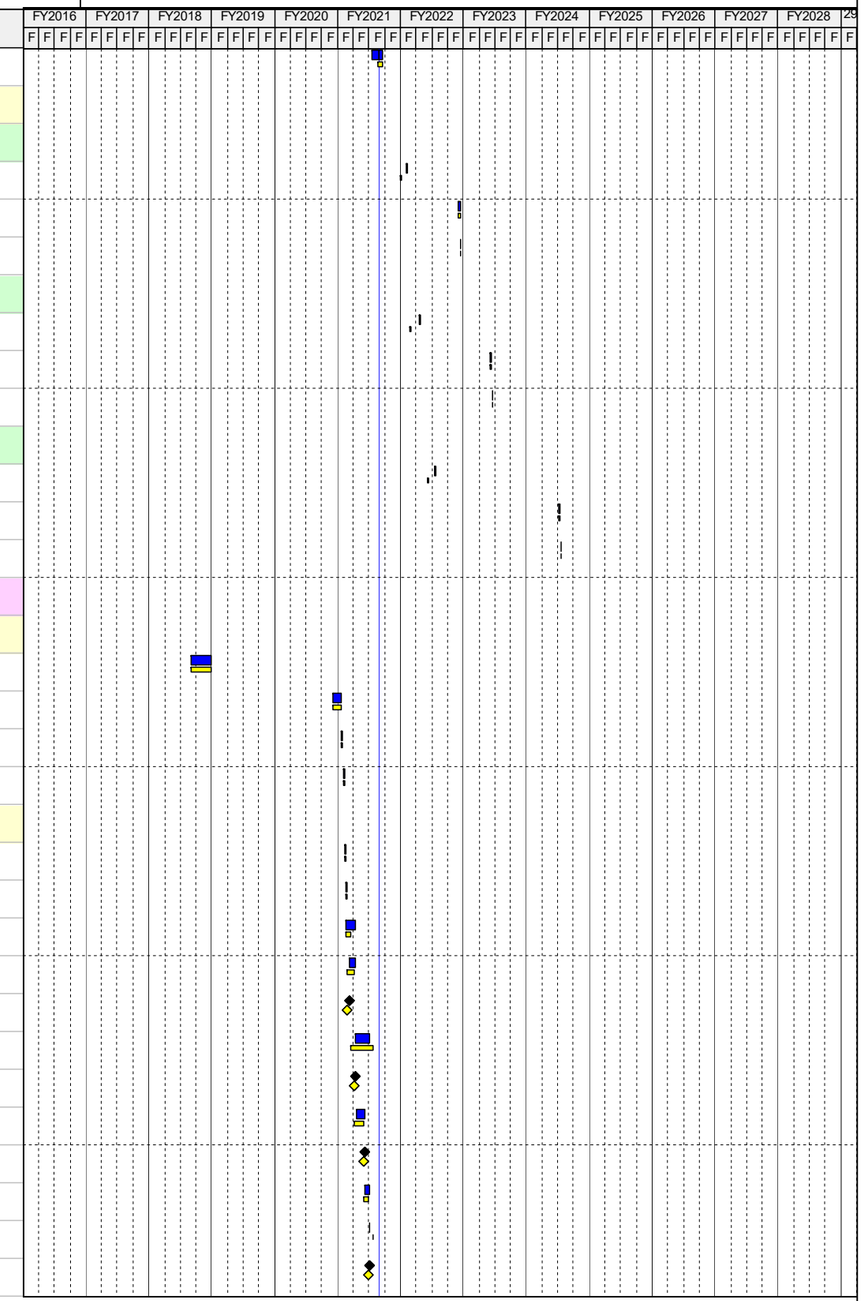
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P342P355	Receipt of Remaining RF Components	25-Aug-21	31-Aug-21	10-Aug-21	16-Aug-21	0%	5	$26,899	Mark Crofford
P.03.04.02.03.06	Picoammeter	04-Mar-21 A	30-Jun-21	04-Mar-21	11-Jun-21		22	$83,855	
P342P196	Procure picoammeter	04-Mar-21 A	16-Apr-21 A	04-Mar-21	24-Mar-21	100%	0	$10,712	Mark Crofford
P342P199	Fabricate picoammeter	19-Apr-21 A	23-Apr-21 A	25-Mar-21	04-Jun-21	100%	0	$0	Mark Crofford
P342P201	Receive and Inspect picoammeter	26-Apr-21 A	30-Jun-21	07-Jun-21	11-Jun-21	64%	22	$73,144	Mark Crofford
P342MS200	Fabricate Picoammeter Complete (MS)		30-Jun-21		04-Jun-21	0%	0	$0	Mark Crofford
P.03.04.02.03.07	Picoammeter Buffer Boards	01-Mar-21 A	28-May-21 A	04-Mar-21	04-Jun-21		0	$15,161	
P342P255	Review Documentation package for Picoammeter Buffer Boards	01-Mar-21 A	05-Mar-21 A	04-Mar-21	10-Mar-21	100%	0	$3,677	Mark Crofford
P342P206	Procure picoammeter buffer boards	08-Mar-21 A	17-Mar-21 A	11-Mar-21	17-Mar-21	100%	0	$1,835	Mark Crofford
P342P295	Fabricate picoammeter buffer boards	18-Mar-21 A	16-Apr-21 A	18-Mar-21	27-May-21	100%	0	$0	Mark Crofford
P342P305	Receive and Inspect picoammeter buffer boards	19-Apr-21 A	28-May-21 A	28-May-21	04-Jun-21	100%	0	$9,650	Mark Crofford
P.03.04.02.04	Installation - LLRF System	26-Apr-21 A	23-Apr-24	15-Jul-21	23-Apr-24		715	$296,919	
P342I166	Frequency Converter test and checkout	26-Apr-21 A	31-Aug-21	15-Jul-21	31-Aug-21	80%	65	$32,593	Mark Crofford
P342I156	FCM-II RTM Card checkout and integration onto the carrier card	14-Sep-21	25-Oct-21	12-Aug-21	23-Sep-21	0%	30	$31,445	Mark Crofford
P342I161	HPM-II RTM Test and Calibrate	14-Sep-21	25-Oct-21	12-Aug-21	23-Sep-21	0%	30	$31,445	Mark Crofford
P342IMS001	Decision Point: Determine If Existing LLRF Equipment or New LLRF Equipment Should Be Used (MS)	02-Nov-21		01-Oct-21		0%	0	$0	Mark Crofford
P.03.04.02.04.01	Phase 1 Installation	26-Oct-21	19-Sep-22	24-Sep-21	19-Sep-22		221	$65,474	
P342I171	Setup LLRF Racks interiors and install shelves/rails (Phase 1)	26-Oct-21	01-Nov-21	24-Sep-21	30-Sep-21	0%	5	$8,567	Mark Crofford
P342I176	Install LLRF Equipment in the racks (Phase 1)	02-Nov-21	08-Nov-21	01-Oct-21	07-Oct-21	0%	5	$5,712	Mark Crofford
P342I181	Install inner-rack cables and dress rack (Phase 1)	09-Nov-21	15-Nov-21	08-Oct-21	14-Oct-21	0%	5	$5,712	Mark Crofford
P342I186	Phase match cables, measure system losses (Phase 1)	16-Nov-21	15-Dec-21	15-Oct-21	11-Nov-21	0%	20	$11,928	Mark Crofford
P342I200	Perform system integration for the LLRF system (Phase 1)	18-Jan-22	14-Feb-22	10-Jan-22	07-Feb-22	0%	20	$29,190	Mark Crofford
P342I205	Perform system integration for the RF system (Phase 1)	19-Sep-22	19-Sep-22	19-Sep-22	19-Sep-22	0%	1	$4,365	Mark Crofford
P.03.04.02.04.02	Phase 2 Installation	10-Dec-21	22-Mar-23	27-Oct-21	22-Mar-23		312	$83,071	
P342I286	Setup LLRF Racks interiors and install shelves/rails (Phase 2)	10-Dec-21	16-Dec-21	27-Oct-21	02-Nov-21	0%	5	$8,567	Mark Crofford
P342I266	Install LLRF Equipment in the racks (Phase 2)	19-Jan-22	25-Jan-22	24-Nov-21	02-Dec-21	0%	5	$8,567	Mark Crofford
P342I256	Install inner-rack cables and dress rack (Phase 2)	26-Jan-22	01-Feb-22	03-Dec-21	09-Dec-21	0%	5	$8,567	Mark Crofford
P342I276	Phase match cables, measure system losses (Phase 2)	02-Feb-22	01-Mar-22	10-Dec-21	18-Jan-22	0%	20	$17,179	Mark Crofford
P342I220	Perform system integration for the LLRF system (Phase 2)	18-Apr-22	13-May-22	18-Apr-22	13-May-22	0%	20	$36,645	Mark Crofford
P342I210	Perform system integration for the RF system (Phase 2)	22-Mar-23	22-Mar-23	22-Mar-23	22-Mar-23	0%	1	$3,545	Mark Crofford
P.03.04.02.04.03	Phase 3 Installation	23-Mar-22	23-Apr-24	09-Feb-22	23-Apr-24		516	$52,891	
P342I291	Setup LLRF Racks interiors and install shelves/rails (Phase 3)	23-Mar-22	29-Mar-22	09-Feb-22	15-Feb-22	0%	5	$5,712	Mark Crofford
P342I271	Install LLRF Equipment in the racks (Phase 3)	20-Apr-22	26-Apr-22	08-Mar-22	14-Mar-22	0%	5	$3,808	Mark Crofford



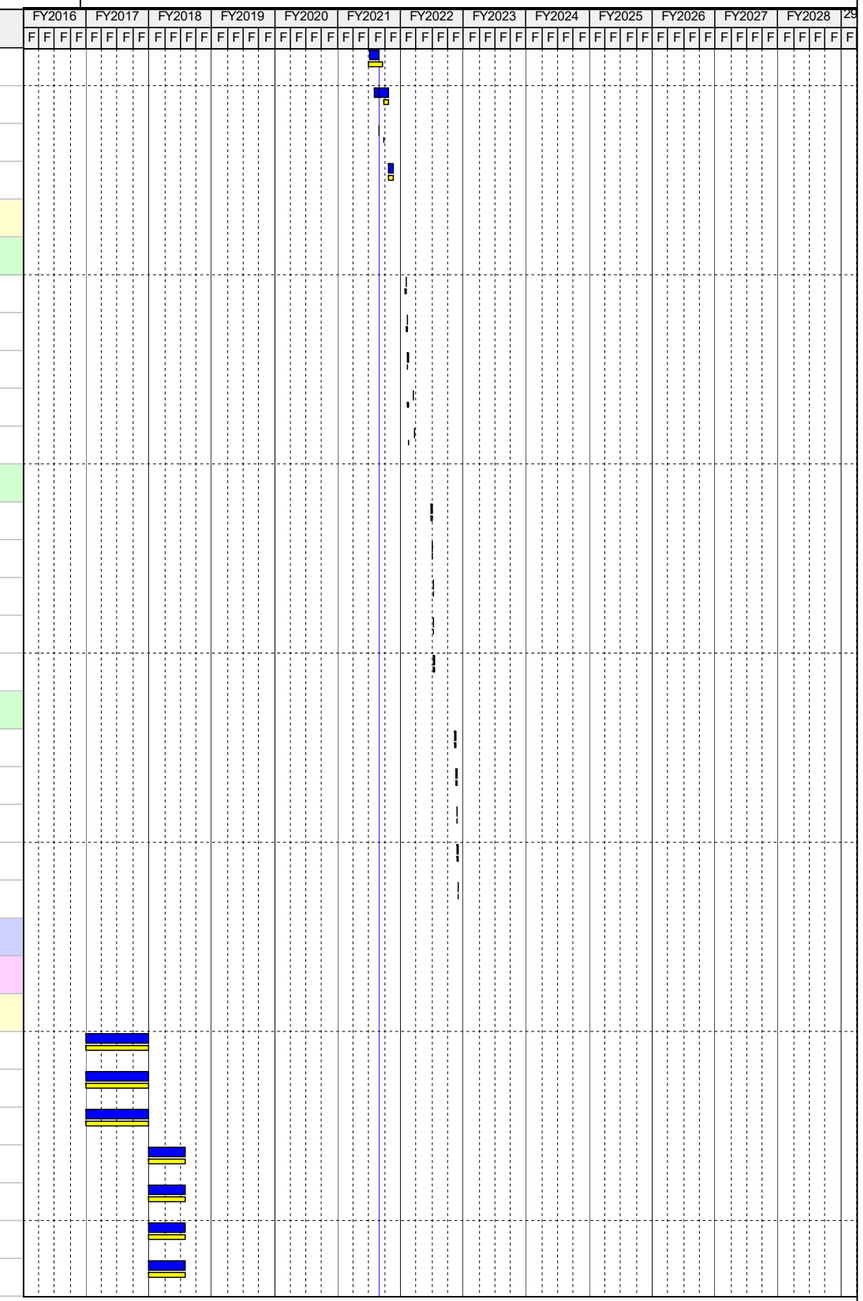
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P342I261	Install inner-rack cables and dress rack (Phase 3)	27-Apr-22	03-May-22	15-Mar-22	21-Mar-22	0%	5	$3,808	Mark Crofford
P342I281	Phase match cables, measure system losses (Phase 3)	04-May-22	01-Jun-22	22-Mar-22	19-Apr-22	0%	20	$11,452	Mark Crofford
P342I225	Perform system integration for the LLRF system (Phase 3)	02-Sep-22	30-Sep-22	02-Sep-22	30-Sep-22	0%	20	$24,430	Mark Crofford
P342I215	Perform system integration for the RF system (Phase 3)	23-Apr-24	23-Apr-24	23-Apr-24	23-Apr-24	0%	1	$3,682	Mark Crofford
P.03.04.03	Arc Detectors	01-Jun-18 A	18-Apr-24	01-Jun-18	18-Apr-24		712	$445,182	
P.03.04.03.02	Design - Arc Detectors - (NEP34320)	01-Jun-18 A	14-Oct-20 A	01-Jun-18	14-Oct-20		0	$0	
P343D1	Review and modify existing specification for Arc detector	01-Jun-18 A	14-Jun-18 A	01-Jun-18	14-Jun-18	100%	0	$0	Mark Crofford
P343D6	Create specification document for Arc detector	22-Jun-18 A	14-Sep-18 A	22-Jun-18	14-Sep-18	100%	0	$0	Mark Crofford
P343D11	Generate interface documents for Arc detector	01-Aug-18 A	21-Sep-18 A	01-Aug-18	21-Sep-18	100%	0	$0	Mark Crofford
P343D146	Procure Test Article Arc Detector	02-Mar-20 A	31-Mar-20 A	02-Mar-20	31-Mar-20	100%	0	$0	Mark Crofford
P343D146a	Procure Test Article Arc Detector (Apr20>)	01-Apr-20 A	17-Apr-20 A	01-Apr-20	17-Apr-20	100%	0	$0	Mark Crofford
P343D156	Fabricate Test Article Arc Detector	20-Apr-20 A	02-Jun-20 A	20-Apr-20	02-Jun-20	100%	0	$0	Mark Crofford
P343D166	Receive Test Article Arc Detector	02-Jun-20 A	30-Sep-20 A	02-Jun-20	30-Sep-20	100%	0	$0	Mark Crofford
P343D176	Test the Test Article Arc Detector and validation with the HPM-II	01-Oct-20 A	14-Oct-20 A	01-Oct-20	14-Oct-20	100%	0	$0	Mark Crofford
P.03.04.03.03	Procure/Fab - Arc Detectors - (NEP34330)	15-Oct-20 A	19-Apr-22	15-Oct-20	07-Mar-22		218	$420,780	
P.03.04.03.03.01	Arc Detectors	15-Oct-20 A	19-Apr-22	15-Oct-20	07-Mar-22		120	$380,550	
P343P16	Prepare SOW and Tech Spec for Arc detector	15-Oct-20 A	30-Oct-20 A	15-Oct-20	30-Oct-20	100%	0	$0	Mark Crofford
P343P46	Procurement Readiness Review (PRR) for arc detectors	02-Nov-20 A	06-Nov-20 A	02-Nov-20	06-Nov-20	100%	0	$232	Mark Crofford
P343MS56	Technical Package to Procurement for arc detectors (MS)		11-Dec-20 A		06-Nov-20	100%	0	$0	Mark Crofford
P343P66	Procurement Review and Bid for arc detectors	14-Dec-20 A	04-Jan-21 A	09-Nov-20	01-Dec-20	100%	0	$386	Mark Crofford
P343MS76	Issue RFP for arc detectors (MS)		04-Jan-21 A		01-Dec-20	100%	0	$0	Mark Crofford
P343P86	Solicitation Period for arc detectors	04-Jan-21 A	01-Feb-21 A	02-Dec-20	20-Jan-21	100%	0	$2,781	Mark Crofford
P343P21	Review and Award Contract for arc detectors	05-Jan-21 A	03-Feb-21 A	21-Jan-21	10-Feb-21	100%	0	$2,526	Mark Crofford
P343MS106	Solicitation Complete for arc detectors (MS)		01-Feb-21 A		20-Jan-21	100%	0	$0	Mark Crofford
P343P116	Award Contract for arc detectors (MS)		03-Feb-21 A		10-Feb-21	100%	0	$0	Mark Crofford
P343P24	Fabrication of arc detectors	04-Feb-21 A	14-May-21 A	11-Feb-21	02-Aug-21	100%	0	$0	Mark Crofford
P343P31	Receive, Inspect and Store arc detectors	14-May-21 A	28-May-21 A	03-Aug-21	23-Aug-21	100%	0	$373,197	Mark Crofford
P343P36	Deliver arc detectors for installation (Phase 1)	19-Oct-21	01-Nov-21	17-Sep-21	30-Sep-21	0%	10	$476	Mark Crofford
P343P45	Deliver arc detectors for installation (Phase 2)	04-Jan-22	18-Jan-22	10-Nov-21	23-Nov-21	0%	10	$476	Mark Crofford
P343P50	Deliver arc detectors for installation (Phase 3)	05-Apr-22	19-Apr-22	22-Feb-22	07-Mar-22	0%	10	$476	Mark Crofford
P.03.04.03.03.02	Arc test boxes	01-Feb-21 A	18-Jun-21	11-Feb-21	18-Jun-21		14	$40,230	
P343P126	Procure arc test boxes (All)	01-Feb-21 A	05-Mar-21 A	11-Feb-21	24-Feb-21	100%	0	$4,131	Mark Crofford
P343P41	Fabrication of arc test boxes (All)	08-Mar-21 A	16-Apr-21 A	25-Feb-21	20-May-21	100%	0	$0	Mark Crofford



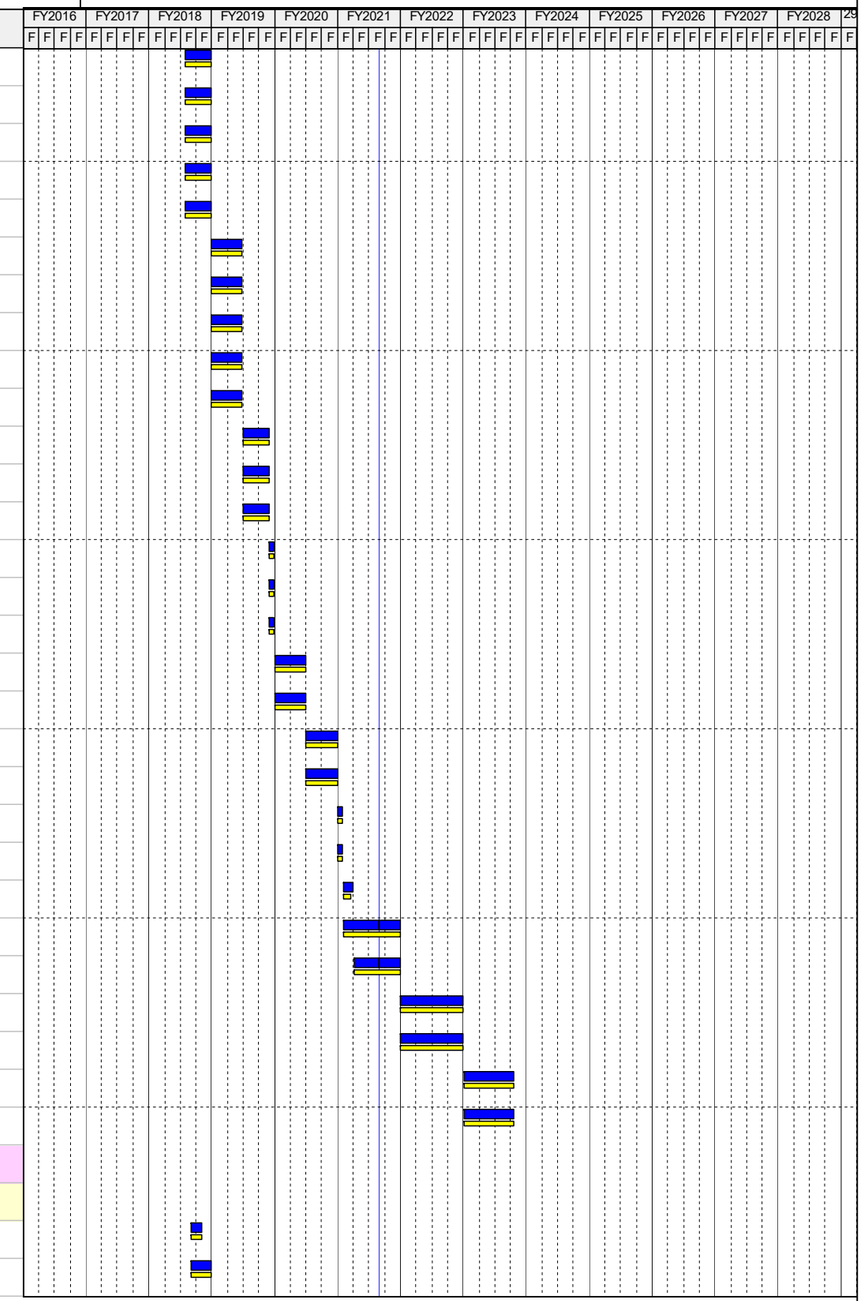
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P343P136	Receive and Inspect arc test boxes (All)	19-Apr-21 A	18-Jun-21	21-May-21	18-Jun-21	85%	14	$36,099	Mark Crofford
P.03.04.03.04	Installation - Arc Detectors	02-Nov-21	18-Apr-24	01-Oct-21	18-Apr-24		604	$24,402	
P.03.04.03.04.01	Phase 1 Installation	02-Nov-21	14-Sep-22	01-Oct-21	14-Sep-22		213	$8,575	
P343I46	Install (1 thru 4 of 14) arc detector chassis in LLRF racks (Phase 1)	02-Nov-21	09-Nov-21	01-Oct-21	08-Oct-21	0%	6	$2,856	Mark Crofford
P343I51	Install arc test system (Phase 1)	02-Sep-22	12-Sep-22	02-Sep-22	12-Sep-22	0%	6	$2,856	Mark Crofford
P343I56	Make Final Connections and Test arc detector systems (Phase 1)	13-Sep-22	14-Sep-22	13-Sep-22	14-Sep-22	0%	2	$2,863	Mark Crofford
P.03.04.03.04.02	Phase 2 Installation	19-Jan-22	17-Mar-23	24-Nov-21	17-Mar-23		289	$8,790	
P343I60	Install (5 thru 10 of 14) arc detector chassis in LLRF racks (Phase 2)	19-Jan-22	26-Jan-22	24-Nov-21	03-Dec-21	0%	6	$2,856	Mark Crofford
P343I70	Install arc test system (Phase 2)	07-Mar-23	14-Mar-23	07-Mar-23	14-Mar-23	0%	6	$3,951	Mark Crofford
P343I80	Make Final Connections and Test arc detector systems (Phase 2)	16-Mar-23	17-Mar-23	16-Mar-23	17-Mar-23	0%	2	$1,983	Mark Crofford
P.03.04.03.04.03	Phase 3 Installation	20-Apr-22	18-Apr-24	08-Mar-22	18-Apr-24		494	$7,037	
P343I65	Install (11 thru 14 of 14) arc detector chassis in LLRF racks (Phase 3)	20-Apr-22	27-Apr-22	08-Mar-22	15-Mar-22	0%	6	$1,904	Mark Crofford
P343I75	Install arc test system (Phase 3)	08-Apr-24	15-Apr-24	08-Apr-24	15-Apr-24	0%	6	$3,075	Mark Crofford
P343I85	Make Final Connections and Test arc detector systems (Phase 3)	17-Apr-24	18-Apr-24	17-Apr-24	18-Apr-24	0%	2	$2,058	Mark Crofford
P.03.04.04	Reference Line	01-Jun-18 A	01-Sep-22	01-Jun-18	01-Sep-22		313	$284,145	
P.03.04.04.02	Design - Reference Line - (NEP34420)	01-Jun-18 A	10-Nov-20 A	01-Jun-18	10-Nov-20		0	$6,407	
P344D36	Review and modify existing specification for reference line materials - Part 1	01-Jun-18 A	28-Sep-18 A	01-Jun-18	28-Sep-18	100%	0	$0	Mark Crofford
P344D36B	Review and modify existing specification for reference line materials	01-Sep-20 A	20-Oct-20 A	01-Sep-20	20-Oct-20	100%	0	$0	Mark Crofford
P344D41	Publish specification document for reference line materials	21-Oct-20 A	27-Oct-20 A	21-Oct-20	27-Oct-20	100%	0	$0	Mark Crofford
P344D46	Generate interface document for reference line materials	02-Nov-20 A	10-Nov-20 A	02-Nov-20	10-Nov-20	100%	0	$6,407	Mark Crofford
P.03.04.04.03	Procure/Fab - Reference Line - (NEP34430)	11-Nov-20 A	19-Aug-21	11-Nov-20	19-Aug-21		57	$256,869	
P344P51	Prepare SOW and Tech Spec for reference line materials	11-Nov-20 A	17-Nov-20 A	11-Nov-20	17-Nov-20	100%	0	$5,888	Mark Crofford
P344P54	Procurement Readiness Review (PRR) for for reference line materials	18-Nov-20 A	24-Nov-20 A	18-Nov-20	24-Nov-20	100%	0	$8,093	Mark Crofford
P342P265	Procure Heliax Type N Radiation Hardened Connectors	18-Nov-20 A	11-Jan-21 A	18-Nov-20	17-Dec-20	100%	0	$6,479	Mark Crofford
P344P91	Procurement Review and Bid for reference line materials	08-Dec-20 A	15-Jan-21 A	25-Nov-20	07-Jan-21	100%	0	$1,159	Mark Crofford
P344MS81	Technical Package to Procurement for reference line materials (MS)		08-Dec-20 A		24-Nov-20	100%	0	$0	Mark Crofford
P342P275	Fabrication of Heliax Type N Radiation Hardened Connectors	12-Jan-21 A	05-Apr-21 A	18-Dec-20	26-Apr-21	100%	0	$0	Mark Crofford
P344MS101	Issue RFP for reference line materials (MS)		15-Jan-21 A		07-Jan-21	100%	0	$0	Mark Crofford
P344P111	Solicitation Period for reference line materials	19-Jan-21 A	08-Mar-21 A	08-Jan-21	26-Feb-21	100%	0	$2,361	Mark Crofford
P344P121	Solicitation Complete for reference line materials (MS)		08-Mar-21 A		26-Feb-21	100%	0	$0	Mark Crofford
P344P56	Review and Award Contract for reference line materials	09-Mar-21 A	06-Apr-21 A	01-Mar-21	26-Mar-21	100%	0	$4,446	Mark Crofford
P342P285	Receive Heliax Type N Radiation Hardened Connectors	06-Apr-21 A	06-Apr-21 A	27-Apr-21	27-Apr-21	100%	0	$172,059	Mark Crofford
P344MS141	Award Contract for for reference line materials (MS)		06-Apr-21 A		26-Mar-21	100%	0	$0	Mark Crofford



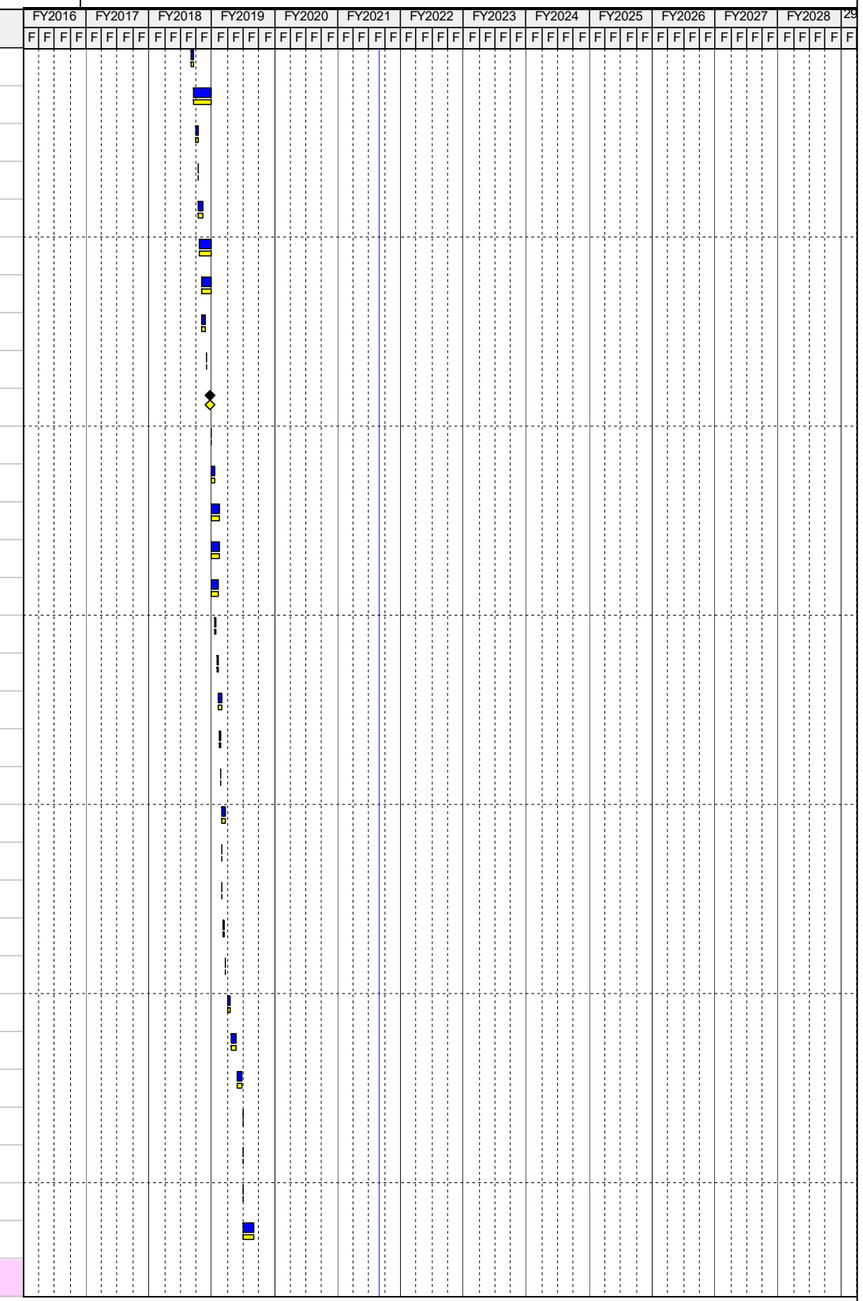
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P344P76	Fabrication of reference line materials	07-Apr-21 A	28-May-21 A	29-Mar-21	22-Jun-21	100%	0	$0	Mark Crofford
P344P66	Fabricate LO amplifier chassis (reference line materials)	03-May-21 A	22-Jul-21	24-Jun-21	22-Jul-21	50%	37	$14,679	Mark Crofford
P344P61	Receive reference line materials	28-May-21 A	28-May-21 A	23-Jun-21	23-Jun-21	100%	0	$27,028	Mark Crofford
P344P71	Fabricate temperature control chassis (reference line materials)	23-Jul-21	19-Aug-21	23-Jul-21	19-Aug-21	0%	20	$14,679	Mark Crofford
P.03.04.04.04 Installation - Reference Line		02-Nov-21	01-Sep-22	29-Oct-21	01-Sep-22		205	$20,868	
P.03.04.04.04.01 Phase 1 Installation		02-Nov-21	21-Dec-21	29-Oct-21	17-Nov-21		34	$9,177	
P344I76	Install LO Amplifier & rack splitters (Phase 1) (Resolve need for Row 49 Rack)	02-Nov-21	05-Nov-21	29-Oct-21	03-Nov-21	0%	4	$1,904	Mark Crofford
P344I81	Install reference temperature control chassis (Phase 1)	08-Nov-21	11-Nov-21	04-Nov-21	09-Nov-21	0%	4	$1,904	Mark Crofford
P344I86	Install Couplers in LO line (Phase 1)	12-Nov-21	15-Nov-21	10-Nov-21	11-Nov-21	0%	2	$952	Mark Crofford
P344I91	Install Reference Line connections (Phase 1)	16-Dec-21	17-Dec-21	12-Nov-21	15-Nov-21	0%	2	$1,904	Mark Crofford
P344I100	Verify RF Levels (Phase 1)	20-Dec-21	21-Dec-21	16-Nov-21	17-Nov-21	0%	2	$2,514	Mark Crofford
P.03.04.04.04.02 Phase 2 Installation		28-Mar-22	14-Apr-22	28-Mar-22	14-Apr-22		14	$6,321	
P344I77	Install LO Amplifier & rack splitters (Phase 2)	28-Mar-22	31-Mar-22	28-Mar-22	31-Mar-22	0%	4	$952	Mark Crofford
P344I82	Install reference temperature control chassis (Phase 2)	01-Apr-22	06-Apr-22	01-Apr-22	06-Apr-22	0%	4	$952	Mark Crofford
P344I87	Install Couplers in LO line (Phase 2)	07-Apr-22	08-Apr-22	07-Apr-22	08-Apr-22	0%	2	$1,904	Mark Crofford
P344I92	Install Reference Line connections (Phase 2)	11-Apr-22	12-Apr-22	11-Apr-22	12-Apr-22	0%	2	$952	Mark Crofford
P344I105	Verify RF Levels (Phase 2)	13-Apr-22	14-Apr-22	13-Apr-22	14-Apr-22	0%	2	$1,562	Mark Crofford
P.03.04.04.04.03 Phase 3 Installation		15-Aug-22	01-Sep-22	15-Aug-22	01-Sep-22		14	$5,369	
P344I78	Install LO Amplifier & rack splitters (Phase 3)	15-Aug-22	18-Aug-22	15-Aug-22	18-Aug-22	0%	4	$952	Mark Crofford
P344I83	Install reference temperature control chassis (Phase 3)	19-Aug-22	24-Aug-22	19-Aug-22	24-Aug-22	0%	4	$952	Mark Crofford
P344I89	Install Couplers in LO line (Phase 3)	25-Aug-22	26-Aug-22	25-Aug-22	26-Aug-22	0%	2	$952	Mark Crofford
P344I93	Install Reference Line connections (Phase 3)	29-Aug-22	30-Aug-22	29-Aug-22	30-Aug-22	0%	2	$952	Mark Crofford
P344I110	Verify RF Levels (Phase 3)	31-Aug-22	01-Sep-22	31-Aug-22	01-Sep-22	0%	2	$1,562	Mark Crofford
P.03.05 Existing Linac Modulators		03-Oct-16 A	19-Jul-23	03-Oct-16	19-Jul-23		527	$2,021,043	
P.03.05.01 Management and System Integration - Existing Linac Modulators		03-Oct-16 A	18-Jul-23	03-Oct-16	18-Jul-23		526	$143,036	
P.03.05.01.01 Management and System Integration - Existing Linac Modulators - (NEP35110)		03-Oct-16 A	18-Jul-23	03-Oct-16	18-Jul-23		526	$143,036	
P351M61	WBS Management P.3.5.2 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Chris Pappas
P351M72	WBS Management P.3.5.3 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Chris Pappas
P351M1	WBS Management P.3.5 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Chris Pappas
P351M4	WBS Management P.3.5 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Chris Pappas
P351M63	WBS Management P.3.5.2 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Chris Pappas
P351M73	WBS Management P.3.5.3 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Chris Pappas
P351M79	WBS Management P.3.5.4 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Chris Pappas



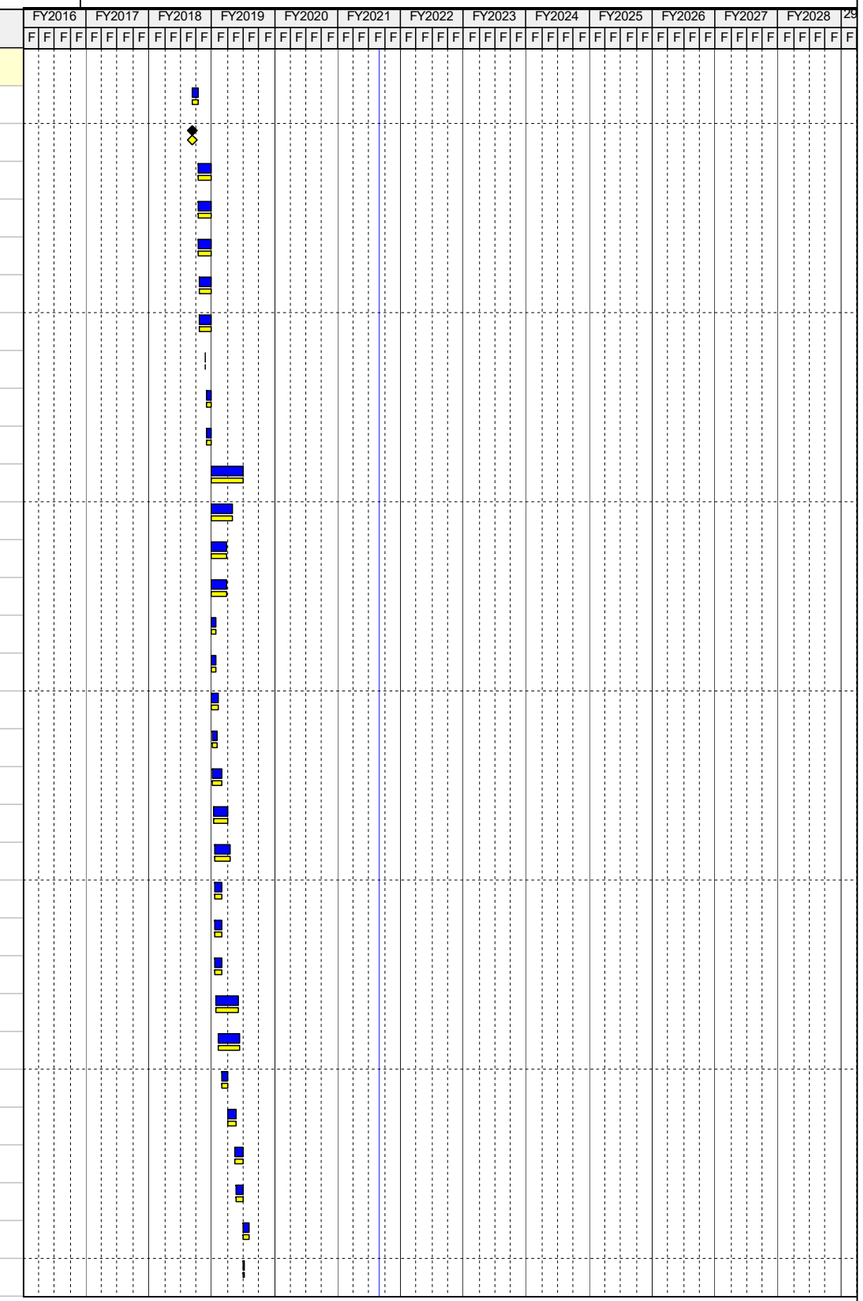
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P351M62	WBS Management P.3.5.2 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Chris Pappas
P351M74	WBS Management P.3.5.3 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Chris Pappas
P351M90	WBS Management P.3.5.5 FY18 (May Through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Chris Pappas
P351M80	WBS Management P.3.5.4 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Chris Pappas
P351M6	WBS Management P.3.5 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Chris Pappas
P351M11	WBS Management P.3.5 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Chris Pappas
P351M65	WBS Management P.3.5.2 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Chris Pappas
P351M76	WBS Management P.3.5.3 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Chris Pappas
P351M82	WBS Management P.3.5.4 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Chris Pappas
P351M92	WBS Management P.3.5.5 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Chris Pappas
P351M600	WBS Management P.3.5.6 FY19 (LOE) (Apr19-Aug19)	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Chris Pappas
P351M11B	WBS Management P.3.5 FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Chris Pappas
P351M76B	WBS Management P.3.5.3 FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Chris Pappas
P351M76C	WBS Management P.3.5.3 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Chris Pappas
P351M11C	WBS Management P.3.5 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Chris Pappas
P351M600C	WBS Management P.3.5.6 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Chris Pappas
P351M16	WBS Management P.3.5 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Chris Pappas
P351M605	WBS Management P.3.5.6 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Chris Pappas
P351M16a	WBS Management P.3.5 FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Chris Pappas
P351M605a	WBS Management P.3.5.6 FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Chris Pappas
P351M21	WBS Management P.3.5 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Chris Pappas
P351M610	WBS Management P.3.5.6 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Chris Pappas
P351M21a	WBS Management P.3.5 FY21 (LOE) Part 2 (Nov20 - Dec20)	02-Nov-20 A	31-Dec-20 A	02-Nov-20	18-Dec-20	100%	0	$4,312	Chris Pappas
P351M610a	WBS Management P.3.5.6 FY21 (LOE) Part 2 (Nov20 - Sep21)	02-Nov-20 A	30-Sep-21	02-Nov-20	30-Sep-21	61.26%	86	$26,637	Chris Pappas
P351M21b	WBS Management P.3.5 FY21 (LOE) Part 2 (Jan21 - Sep21)	04-Jan-21 A	30-Sep-21	04-Jan-21	30-Sep-21	54.5%	86	$21,514	Chris Pappas
P351M26	WBS Management P.3.5 FY22 (LOE)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$29,939	Chris Pappas
P351M615	WBS Management P.3.5.6 FY22 (LOE)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$19,959	Chris Pappas
P351M128	WBS Management P.3.5 FY23 (LOE)	03-Oct-22	18-Jul-23	03-Oct-22	18-Jul-23	0%	193	$24,904	Chris Pappas
P351M625	WBS Management P.3.5.6 FY23 (LOE)	03-Oct-22	18-Jul-23	03-Oct-22	18-Jul-23	0%	193	$15,772	Chris Pappas
P.03.05.04 Modulator System Test Article Development and Testing		01-Jun-18 A	31-May-19 A	01-Jun-18	31-May-19		0	$0	
P.03.05.04.02 Design - Modulator System Test Article Development and Testing - (NEP35420)		01-Jun-18 A	31-May-19 A	01-Jun-18	31-May-19		0	$0	
P354D30	Solicit bids and award contract for transformer components (X3) for test article	01-Jun-18 A	01-Aug-18 A	01-Jun-18	01-Aug-18	100%	0	$0	Chris Pappas
P354D40	Procure and receive boost transformers (X3) for test article - Part 1	01-Jun-18 A	28-Sep-18 A	01-Jun-18	28-Sep-18	100%	0	$0	Chris Pappas



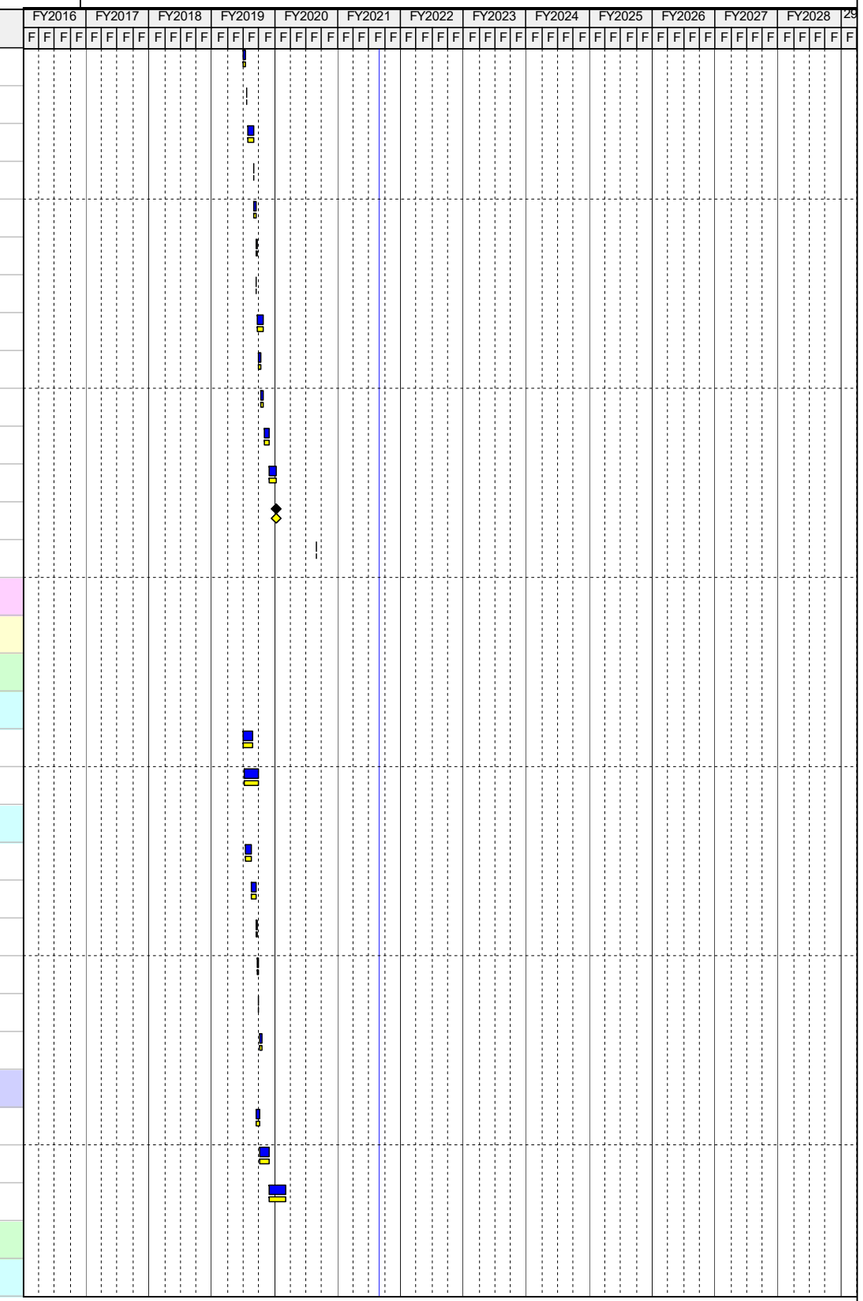
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P354D45	Solicit bids and award contract for test load or equivalent	01-Jun-18 A	14-Jun-18 A	01-Jun-18	14-Jun-18	100%	0	$0	Chris Pappas
P354D50	Receive, assemble and initial test load or equivalent - Part 1	15-Jun-18 A	28-Sep-18 A	15-Jun-18	28-Sep-18	100%	0	$0	Chris Pappas
P354D21	Component redesign and generate specification for transformer components (X3) for test article	02-Jul-18 A	16-Jul-18 A	02-Jul-18	16-Jul-18	100%	0	$0	Chris Pappas
P354D26	Develop Test Plan for transformer and capacitor testing	17-Jul-18 A	18-Jul-18 A	17-Jul-18	18-Jul-18	100%	0	$0	Chris Pappas
P354D140	Procure and receive oil for test load	18-Jul-18 A	10-Aug-18 A	18-Jul-18	10-Aug-18	100%	0	$0	Chris Pappas
P354D120	Reconfigure RF Annex infrastructure for test load - Part 1	23-Jul-18 A	28-Sep-18 A	23-Jul-18	28-Sep-18	100%	0	$0	Chris Pappas
P354D110	Procure and Receive Misc materials and supplies to support testing - Part 1	02-Aug-18 A	28-Sep-18 A	02-Aug-18	28-Sep-18	100%	0	$0	Chris Pappas
P354D34	Fabricate capacitors (X3) for test article	02-Aug-18 A	28-Aug-18 A	02-Aug-18	28-Aug-18	100%	0	$0	Chris Pappas
P354D35	Receive capacitors (X3) for test article	29-Aug-18 A	29-Aug-18 A	29-Aug-18	29-Aug-18	100%	0	$0	Chris Pappas
P354MS001	RFTF Available for Testing (MS)	24-Sep-18 A		24-Sep-18		100%	0	$0	Chris Pappas
P354D70	Bench testing of test article capacitors	01-Oct-18 A	01-Oct-18 A	01-Oct-18	01-Oct-18	100%	0	$0	Chris Pappas
P354D110B	Procure and Receive Misc materials and supplies to support testing - Continued from 90%	01-Oct-18 A	17-Oct-18 A	01-Oct-18	17-Oct-18	100%	0	$0	Chris Pappas
P354D120B	Reconfigure RF Annex infrastructure for test load - Continued from 35%	01-Oct-18 A	16-Nov-18 A	01-Oct-18	16-Nov-18	100%	0	$0	Chris Pappas
P354D40B	Procure and receive boost transformers (X3) for test article - Continued from 60%	01-Oct-18 A	14-Nov-18 A	01-Oct-18	14-Nov-18	100%	0	$0	Chris Pappas
P354D50B	Receive, assemble and initial test load or equivalent - Continued from 50%	01-Oct-18 A	09-Nov-18 A	01-Oct-18	09-Nov-18	100%	0	$0	Chris Pappas
P354D60	Assemble 1st test article transformer and install in single phase test stand	18-Oct-18 A	24-Oct-18 A	18-Oct-18	24-Oct-18	100%	0	$0	Chris Pappas
P354D142	RFQ klystron only test of RFQ-Mod1	01-Nov-18 A	06-Nov-18 A	01-Nov-18	06-Nov-18	100%	0	$0	Chris Pappas
P354D55	Modify hardware for test load to mimic dual 3.0 MW klystrons	12-Nov-18 A	27-Nov-18 A	12-Nov-18	27-Nov-18	100%	0	$0	Chris Pappas
P354D75	Assemble remaining transformers, install with capacitors in HVCM tank. Relocate tank to RFTF HVCM location	15-Nov-18 A	21-Nov-18 A	15-Nov-18	21-Nov-18	100%	0	$0	Chris Pappas
P354D130	Modify cooling skid and connect for test load	19-Nov-18 A	21-Nov-18 A	19-Nov-18	21-Nov-18	100%	0	$0	Chris Pappas
P354D95	Test dual 3.0 MW klystron HVCM system, quantify performance, perform long-term reliability test	27-Nov-18 A	21-Dec-18 A	27-Nov-18	21-Dec-18	100%	0	$0	Chris Pappas
P354D80	Assembly of test load or equivalent	28-Nov-18 A	28-Nov-18 A	28-Nov-18	28-Nov-18	100%	0	$0	Chris Pappas
P354D85	Connect load, leak test, bench test, other interface issues	29-Nov-18 A	30-Nov-18 A	29-Nov-18	30-Nov-18	100%	0	$0	Chris Pappas
P354D145	Extended reliability run of existing RFQ-Mod1	03-Dec-18 A	14-Dec-18 A	03-Dec-18	14-Dec-18	100%	0	$0	Chris Pappas
P354D155	Evaluate results of RFQ-Mod1 reliability run	17-Dec-18 A	21-Dec-18 A	17-Dec-18	21-Dec-18	100%	0	$0	Chris Pappas
P354D95a	Fabricate and Measure Alternate Boost Transformer Primaries	02-Jan-19 A	18-Jan-19 A	02-Jan-19	18-Jan-19	100%	0	$0	Chris Pappas
P354D95aa	Fabricate and Measure Alternate Boost Transformer Secondaries	22-Jan-19 A	20-Feb-19 A	22-Jan-19	20-Feb-19	100%	0	$0	Chris Pappas
P354D95b	Test Secondaries in SPTS & Modify Remaining Secondaries	01-Mar-19 A	28-Mar-19 A	01-Mar-19	28-Mar-19	100%	0	$0	Chris Pappas
P354D95f	Uninstall Second Upgrade Test Hardware from RFTF Tank (Decided to leave in the tank)	01-Apr-19 A	03-Apr-19 A	01-Apr-19	03-Apr-19	100%	0	$0	Chris Pappas
P354D95c	Assemble and Test Second Upgrade Boost Transformer	01-Apr-19 A	02-Apr-19 A	01-Apr-19	02-Apr-19	100%	0	$0	Chris Pappas
P354D95d	Install Second Upgrade Test Hardware from RFTF Tank	03-Apr-19 A	04-Apr-19 A	03-Apr-19	04-Apr-19	100%	0	$0	Chris Pappas
P354D95e	Test Second Upgrade Hardware in RFTF Tank	05-Apr-19 A	31-May-19 A	05-Apr-19	31-May-19	100%	0	$0	Chris Pappas
P.03.05.05 Warm Linac Test HVCM		12-Jun-18 A	01-Jun-20 A	12-Jun-18	01-Jun-20		0	$0	



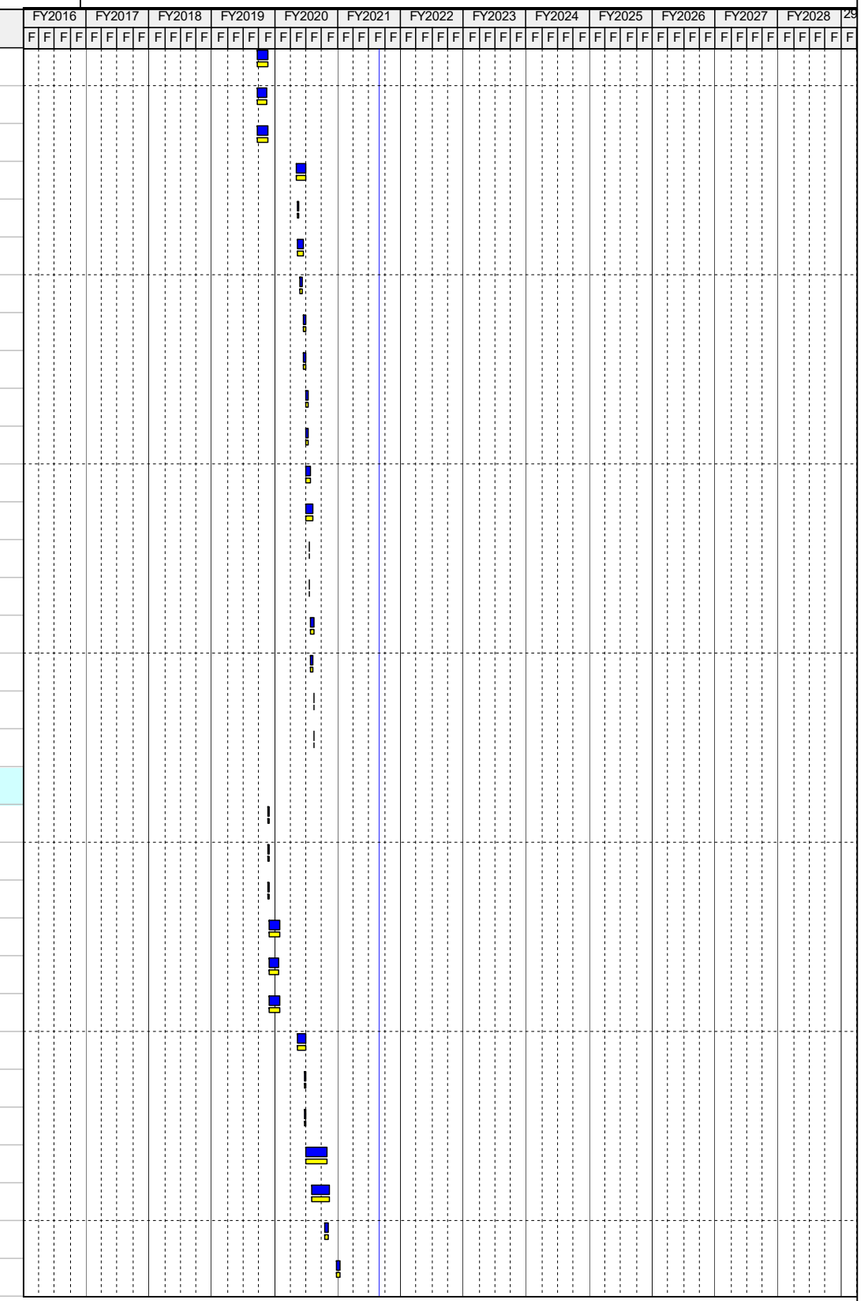
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P.03.05.05.02	Design - Warm Linac Test HVCM - (NEP35520)	12-Jun-18 A	01-Jun-20 A	12-Jun-18	01-Jun-20		0	$0	
P355D100	Modify SCR specification to remove internal controls	12-Jun-18 A	13-Jul-18 A	12-Jun-18	13-Jul-18	100%	0	$0	Chris Pappas
P355MS01	Start Dedicated RFAX HVCM Effort (MS)	12-Jun-18 A		12-Jun-18		100%	0	$0	Chris Pappas
P355D182	DCN infrastructure for Electrical systems - Part 1	13-Jul-18 A	28-Sep-18 A	13-Jul-18	28-Sep-18	100%	0	$0	Chris Pappas
P355D192	DCN infrastructure for cooling systems - Part 1	13-Jul-18 A	28-Sep-18 A	13-Jul-18	28-Sep-18	100%	0	$0	Chris Pappas
P355D175	Procure and Receive SCR Cabinet - Part 1	16-Jul-18 A	28-Sep-18 A	16-Jul-18	28-Sep-18	100%	0	$0	Chris Pappas
P355D170	Procure and Receive Transformer/ Harmonic traps - Part 1	25-Jul-18 A	28-Sep-18 A	25-Jul-18	28-Sep-18	100%	0	$0	Chris Pappas
P355D220	Modify infrastructure - Part 1	25-Jul-18 A	28-Sep-18 A	25-Jul-18	28-Sep-18	100%	0	$0	Chris Pappas
P355D172	Vendor design review for SCR and transformer	27-Aug-18 A	27-Aug-18 A	27-Aug-18	27-Aug-18	100%	0	$0	Chris Pappas
P355D155	HVCM Tank - Procure, Receive and Assemble rectifier assemblies - Part 1	31-Aug-18 A	28-Sep-18 A	31-Aug-18	28-Sep-18	100%	0	$0	Chris Pappas
P355D140	HVCM Tank - Procure and Receive Oil	04-Sep-18 A	28-Sep-18 A	04-Sep-18	28-Sep-18	100%	0	$0	Chris Pappas
P355D220B	Modify infrastructure	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Chris Pappas
P355D155B	HVCM Tank - Procure, Receive and Assemble rectifier assemblies	01-Oct-18 A	31-Jan-19 A	01-Oct-18	31-Jan-19	100%	0	$0	Chris Pappas
P355D170B	Procure and Receive Transformer/ Harmonic traps	01-Oct-18 A	27-Dec-18 A	01-Oct-18	27-Dec-18	100%	0	$0	Chris Pappas
P355D175B	Procure and Receive SCR Cabinet	01-Oct-18 A	27-Dec-18 A	01-Oct-18	27-Dec-18	100%	0	$0	Chris Pappas
P355D182B	DCN infrastructure for Electrical systems - Continued from 75%	01-Oct-18 A	29-Oct-18 A	01-Oct-18	29-Oct-18	100%	0	$0	Chris Pappas
P355D192B	DCN infrastructure for cooling systems - Continued from 80%	01-Oct-18 A	29-Oct-18 A	01-Oct-18	29-Oct-18	100%	0	$0	Chris Pappas
P355D259	Solicit Bids and Evaluate for Rack and Chassis	01-Oct-18 A	06-Nov-18 A	01-Oct-18	06-Nov-18	100%	0	$0	Chris Pappas
P355D150	HVCM Tank - Procure, Receive and Assemble spare choke	03-Oct-18 A	31-Oct-18 A	03-Oct-18	31-Oct-18	100%	0	$0	Chris Pappas
P355D145	HVCM Tank - Procure, receive and assemble cooling skid	03-Oct-18 A	30-Nov-18 A	03-Oct-18	30-Nov-18	100%	0	$0	Chris Pappas
P355D130	HVCM Tank - Procure and Receive misc. mechanical parts	10-Oct-18 A	02-Jan-19 A	10-Oct-18	02-Jan-19	100%	0	$0	Chris Pappas
P355D180	Safety Enclosure - Fabricate enclosure	17-Oct-18 A	17-Jan-19 A	17-Oct-18	17-Jan-19	100%	0	$0	Chris Pappas
P355D115	Cap Racks - Order and Receive resistors, dump relays, etc.	17-Oct-18 A	30-Nov-18 A	17-Oct-18	30-Nov-18	100%	0	$0	Chris Pappas
P355D110	Cap Racks - Order and Receive mechanical hardware	17-Oct-18 A	27-Nov-18 A	17-Oct-18	27-Nov-18	100%	0	$0	Chris Pappas
P355D185	Safety Enclosure - Order and Receive misc. components	22-Oct-18 A	30-Nov-18 A	22-Oct-18	30-Nov-18	100%	0	$0	Chris Pappas
P355D135	HVCM Tank - Procure and Receive boost XFMR windings (Part 2, status will be taken when received)	24-Oct-18 A	07-Mar-19 A	24-Oct-18	07-Mar-19	100%	0	$0	Chris Pappas
P355D260	Place Order and Receive Rack and Chassis	07-Nov-18 A	11-Mar-19 A	07-Nov-18	11-Mar-19	100%	0	$0	Chris Pappas
P355D105	Cap Racks - Assemble cap racks	26-Nov-18 A	03-Jan-19 A	26-Nov-18	03-Jan-19	100%	0	$0	Chris Pappas
P355D235	Safety Enclosure - Wire and install components	02-Jan-19 A	22-Feb-19 A	02-Jan-19	22-Feb-19	100%	0	$0	Chris Pappas
P355D125	HVCM Tank - Assemble XFMRS	15-Feb-19 A	29-Mar-19 A	15-Feb-19	29-Mar-19	100%	0	$0	Chris Pappas
P355D120	HVCM Tank - Assemble components in basket & install cooling skid	20-Feb-19 A	29-Mar-19 A	20-Feb-19	29-Mar-19	100%	0	$0	Chris Pappas
P355D220C	Modify infrastructure - Continued	01-Apr-19 A	06-May-19 A	01-Apr-19	06-May-19	100%	0	$0	Chris Pappas
P355D160	HVCM Tank - Test components in-situ	01-Apr-19 A	05-Apr-19 A	01-Apr-19	05-Apr-19	100%	0	$0	Chris Pappas



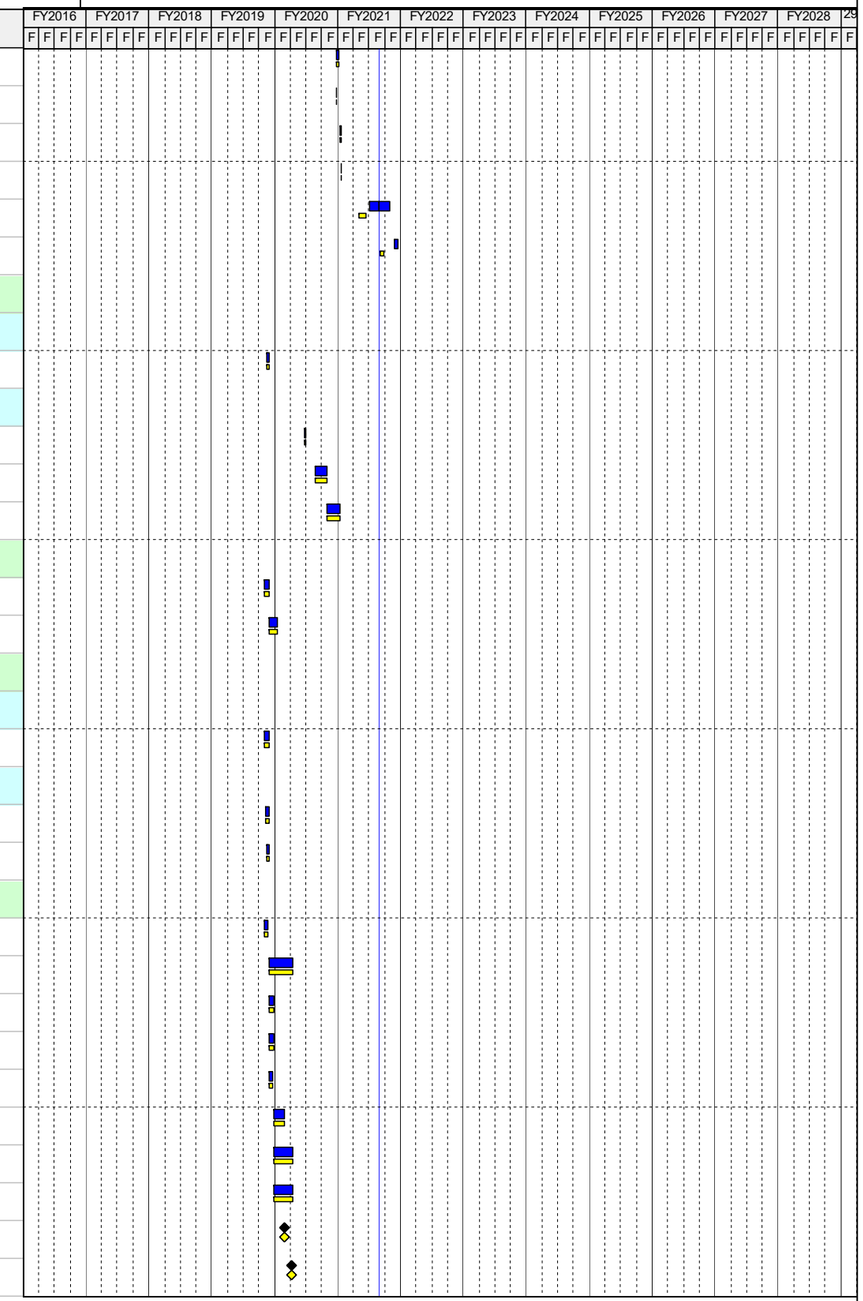
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P355D210	Install SCR cabinet	01-Apr-19 A	12-Apr-19 A	01-Apr-19	12-Apr-19	100%	0	$0	Chris Pappas
P355D230	Safety Enclosure - Install enclosure in position	23-Apr-19 A	25-Apr-19 A	23-Apr-19	25-Apr-19	100%	0	$0	Chris Pappas
P355D255	Cap Racks - Install cap racks	26-Apr-19 A	31-May-19 A	26-Apr-19	31-May-19	100%	0	$0	Chris Pappas
P355D195	HVCM Tank - Install basket in tank	05-Jun-19 A	05-Jun-19 A	05-Jun-19	05-Jun-19	100%	0	$0	Chris Pappas
P355D200	Install controller	05-Jun-19 A	19-Jun-19 A	05-Jun-19	19-Jun-19	100%	0	$0	Chris Pappas
P355D215	Install tank into enclosure	17-Jun-19 A	26-Jun-19 A	17-Jun-19	26-Jun-19	100%	0	$0	Chris Pappas
P355D250	Wire controls	18-Jun-19 A	19-Jun-19 A	18-Jun-19	19-Jun-19	100%	0	$0	Chris Pappas
P355D240	Terminate AC & DC power	25-Jun-19 A	26-Jul-19 A	25-Jun-19	26-Jul-19	100%	0	$0	Chris Pappas
P355D225	Plumb system DI water	02-Jul-19 A	15-Jul-19 A	02-Jul-19	15-Jul-19	100%	0	$0	Chris Pappas
P355D190	Connect interfaces and test	11-Jul-19 A	31-Jul-19 A	11-Jul-19	31-Jul-19	100%	0	$0	Chris Pappas
P355D245	Test/checkout (and integrate PPS)	01-Aug-19 A	30-Aug-19 A	01-Aug-19	30-Aug-19	100%	0	$0	Chris Pappas
P355D245b	Test/checkout (and integrate PPS) - Continued	03-Sep-19 A	09-Oct-19 A	03-Sep-19	09-Oct-19	100%	0	$0	Chris Pappas
P355MS02	RFAX-Mod1 HVCM ready to support PPU development and testing activities (MS)		09-Oct-19 A		09-Oct-19	100%	0	$0	Chris Pappas
P355D247	Correction of Missing Actuals (AP erroneously marked old PO not recvd Pre-baseline, then corrected to Received in May.	01-Jun-20 A	01-Jun-20 A	01-Jun-20	01-Jun-20	100%	0	$0	Chris Pappas
P.03.05.06 Upgrade RFQ/DTL Modulators		01-Apr-19 A	19-Jul-23	01-Apr-19	19-Jul-23		527	$1,878,007	
P.03.05.06.02 Design - Upgrade RFQ/DTL Modulators - (NEP35620)		01-Apr-19 A	10-Dec-21	01-Apr-19	10-Dec-21		135	$451,186	
P.03.05.06.02.01 Conceptual Design		01-Apr-19 A	06-Dec-19 A	01-Apr-19	06-Dec-19		0	$0	
P.03.05.06.02.01.01 Analysis		01-Apr-19 A	28-Jun-19 A	01-Apr-19	28-Jun-19		0	$0	
P356D010	CKT Analysis - Optimization	01-Apr-19 A	29-May-19 A	01-Apr-19	29-May-19	100%	0	$0	Chris Pappas
P356D020	CKT Analysis - Charging Supply	11-Apr-19 A	28-Jun-19 A	11-Apr-19	28-Jun-19	100%	0	$0	Chris Pappas
P.03.05.06.02.01.02 Component Design		18-Apr-19 A	06-Dec-19 A	18-Apr-19	06-Dec-19		0	$0	
P356D030	Pulse Transformer Preliminary Design	18-Apr-19 A	20-May-19 A	18-Apr-19	20-May-19	100%	0	$0	Chris Pappas
P356D040	Resonant Peaking Capacitor Design	21-May-19 A	14-Jun-19 A	21-May-19	14-Jun-19	100%	0	$0	Chris Pappas
P356D050	Semiconductor Selection	17-Jun-19 A	24-Jun-19 A	17-Jun-19	24-Jun-19	100%	0	$0	Chris Pappas
P356D060	Output Choke Design	25-Jun-19 A	27-Jun-19 A	25-Jun-19	27-Jun-19	100%	0	$0	Chris Pappas
P356D080	Mechanical Conceptual Design	27-Jun-19 A	28-Jun-19 A	27-Jun-19	28-Jun-19	100%	0	$0	Chris Pappas
P356D070	Output Capacitor Design	09-Jul-19 A	19-Jul-19 A	09-Jul-19	19-Jul-19	100%	0	$0	Chris Pappas
P.03.05.06.02.01.02.01 Preliminary Design Review		17-Jun-19 A	06-Dec-19 A	17-Jun-19	06-Dec-19		0	$0	
P356D090	Preparation & PDR for RFQ-Mod1Upgrade	17-Jun-19 A	08-Jul-19 A	17-Jun-19	08-Jul-19	100%	0	$0	Chris Pappas
P356D100	PDR Response for RFQ-Mod1Upgrade	09-Jul-19 A	30-Aug-19 A	09-Jul-19	30-Aug-19	100%	0	$0	Chris Pappas
P356D100t	PDR Response for RFQ-Mod1Upgrade - Continued	03-Sep-19 A	06-Dec-19 A	03-Sep-19	06-Dec-19	100%	0	$0	Chris Pappas
P.03.05.06.02.02 High Voltage Tank		21-Jun-19 A	14-Sep-21	21-Jun-19	23-Jun-21		74	$68,162	
P.03.05.06.02.02.01 Electronic Design		21-Jun-19 A	20-May-20 A	21-Jun-19	20-May-20		0	$0	



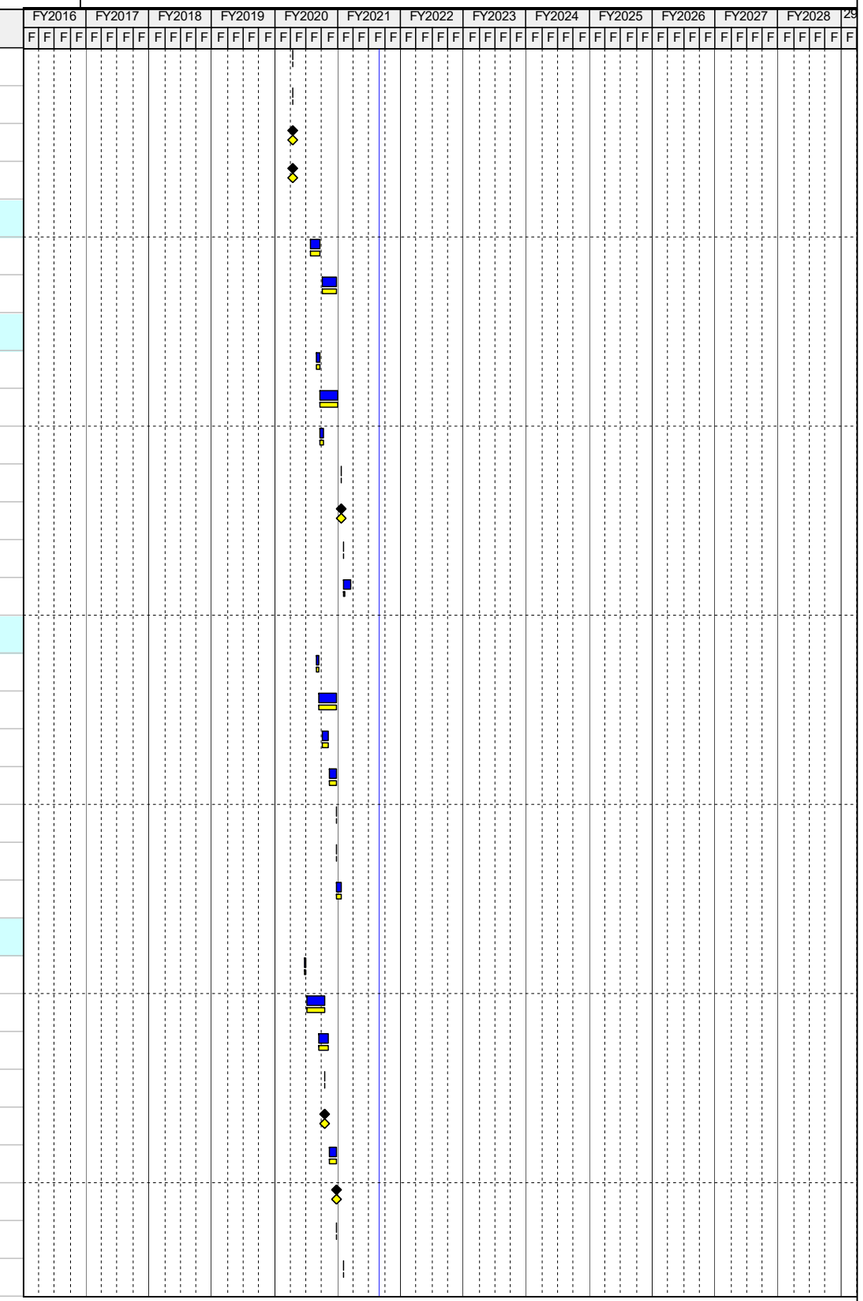
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P356D110	Pulse Transformer Design	21-Jun-19 A	21-Aug-19 A	21-Jun-19	21-Aug-19	100%	0	$0	Chris Pappas
P356D120	Resonant Capacitor Design	21-Jun-19 A	15-Aug-19 A	21-Jun-19	15-Aug-19	100%	0	$0	Chris Pappas
P356D130	Diode Stack Design	21-Jun-19 A	21-Aug-19 A	21-Jun-19	21-Aug-19	100%	0	$0	Chris Pappas
P356D1005	Procure and Receive POP transformer	03-Feb-20 A	31-Mar-20 A	03-Feb-20	31-Mar-20	100%	0	$0	Chris Pappas
P356D110b	Proof of Principle transformer design	14-Feb-20 A	17-Feb-20 A	14-Feb-20	17-Feb-20	100%	0	$0	Chris Pappas
P356D130b	Diode PCB design	14-Feb-20 A	13-Mar-20 A	14-Feb-20	13-Mar-20	100%	0	$0	Chris Pappas
P356D1021	Rectifier PCB design	28-Feb-20 A	12-Mar-20 A	28-Feb-20	12-Mar-20	100%	0	$0	Chris Pappas
P356D1008	Procure and Receive first article diode PCB	16-Mar-20 A	31-Mar-20 A	16-Mar-20	31-Mar-20	100%	0	$0	Chris Pappas
P356D1022	Procure and Receive first article rectifier PCB	19-Mar-20 A	31-Mar-20 A	19-Mar-20	31-Mar-20	100%	0	$0	Chris Pappas
P356D1006	Bench and SPTS test POP transformer	01-Apr-20 A	10-Apr-20 A	01-Apr-20	10-Apr-20	100%	0	$0	Chris Pappas
P356D1005a	Fabricate and Receive POP transformer - Continued	01-Apr-20 A	10-Apr-20 A	01-Apr-20	10-Apr-20	100%	0	$0	Chris Pappas
P356D1008a	Procure and Receive first article diode PCB - Continued	01-Apr-20 A	30-Apr-20 A	01-Apr-20	30-Apr-20	100%	0	$0	Chris Pappas
P356D1022a	Procure and Receive first article rectifier PCB - Continued	01-Apr-20 A	08-May-20 A	01-Apr-20	08-May-20	100%	0	$0	Chris Pappas
P356D1073	Generate 2nd POP transformer drawings	20-Apr-20 A	21-Apr-20 A	20-Apr-20	21-Apr-20	100%	0	$0	Chris Pappas
P356D1083	Procure 2nd POP transformer	22-Apr-20 A	23-Apr-20 A	22-Apr-20	23-Apr-20	100%	0	$0	Chris Pappas
P356D1093	Fabricate 2nd POP transformer	24-Apr-20 A	15-May-20 A	24-Apr-20	15-May-20	100%	0	$0	Chris Pappas
P356D1009	Bench test PCB	27-Apr-20 A	11-May-20 A	27-Apr-20	11-May-20	100%	0	$0	Chris Pappas
P356D1103	Receive 2nd POP transformer	15-May-20 A	15-May-20 A	15-May-20	15-May-20	100%	0	$0	Chris Pappas
P356D1113	Bench Test 2nd POP transformer	15-May-20 A	20-May-20 A	15-May-20	20-May-20	100%	0	$0	Chris Pappas
P.03.05.06.02.02.02	Mechanical Design	22-Aug-19 A	14-Sep-21	22-Aug-19	23-Jun-21		74	$68,162	
P356D140	HV Tank Mechanical Assembly Design	22-Aug-19 A	30-Aug-19 A	22-Aug-19	30-Aug-19	100%	0	$0	Chris Pappas
P356D150	HV Tank Oil System Design	22-Aug-19 A	30-Aug-19 A	22-Aug-19	30-Aug-19	100%	0	$0	Chris Pappas
P356D160	HV Tank Cabling Plan	22-Aug-19 A	30-Aug-19 A	22-Aug-19	30-Aug-19	100%	0	$0	Chris Pappas
P356D140b	HV Tank Mechanical Assembly Design - Continued	03-Sep-19 A	30-Oct-19 A	03-Sep-19	30-Oct-19	100%	0	$0	Chris Pappas
P356D150b	HV Tank Oil System Design - Continued	03-Sep-19 A	21-Oct-19 A	03-Sep-19	21-Oct-19	100%	0	$0	Chris Pappas
P356D160b	HV Tank Cabling Plan - Continued	03-Sep-19 A	31-Oct-19 A	03-Sep-19	31-Oct-19	100%	0	$0	Chris Pappas
P356D140c	HV Tank Mechanical Assy design	14-Feb-20 A	31-Mar-20 A	14-Feb-20	31-Mar-20	100%	0	$0	Chris Pappas
P356D150c	HV Tank Oil System design	27-Mar-20 A	31-Mar-20 A	27-Mar-20	31-Mar-20	100%	0	$0	Chris Pappas
P356D160c	HV Tank cabling plan	27-Mar-20 A	31-Mar-20 A	27-Mar-20	31-Mar-20	100%	0	$0	Chris Pappas
P356D140d	HV Tank Mechanical Assy design - Continued (Apr20>)	01-Apr-20 A	31-Jul-20 A	01-Apr-20	31-Jul-20	100%	0	$0	Chris Pappas
P356D160d	HV Tank cabling plan - Continued (Apr20>)	01-May-20 A	14-Aug-20 A	01-May-20	14-Aug-20	100%	0	$0	Chris Pappas
P356D150d	HV Tank Oil System design - Continued (Apr20>)	16-Jul-20 A	05-Aug-20 A	16-Jul-20	05-Aug-20	100%	0	$0	Chris Pappas
P356D140db	IGBT switch plate drawing update D215	22-Sep-20 A	12-Oct-20 A	22-Sep-20	12-Oct-20	100%	0	$0	Chris Pappas



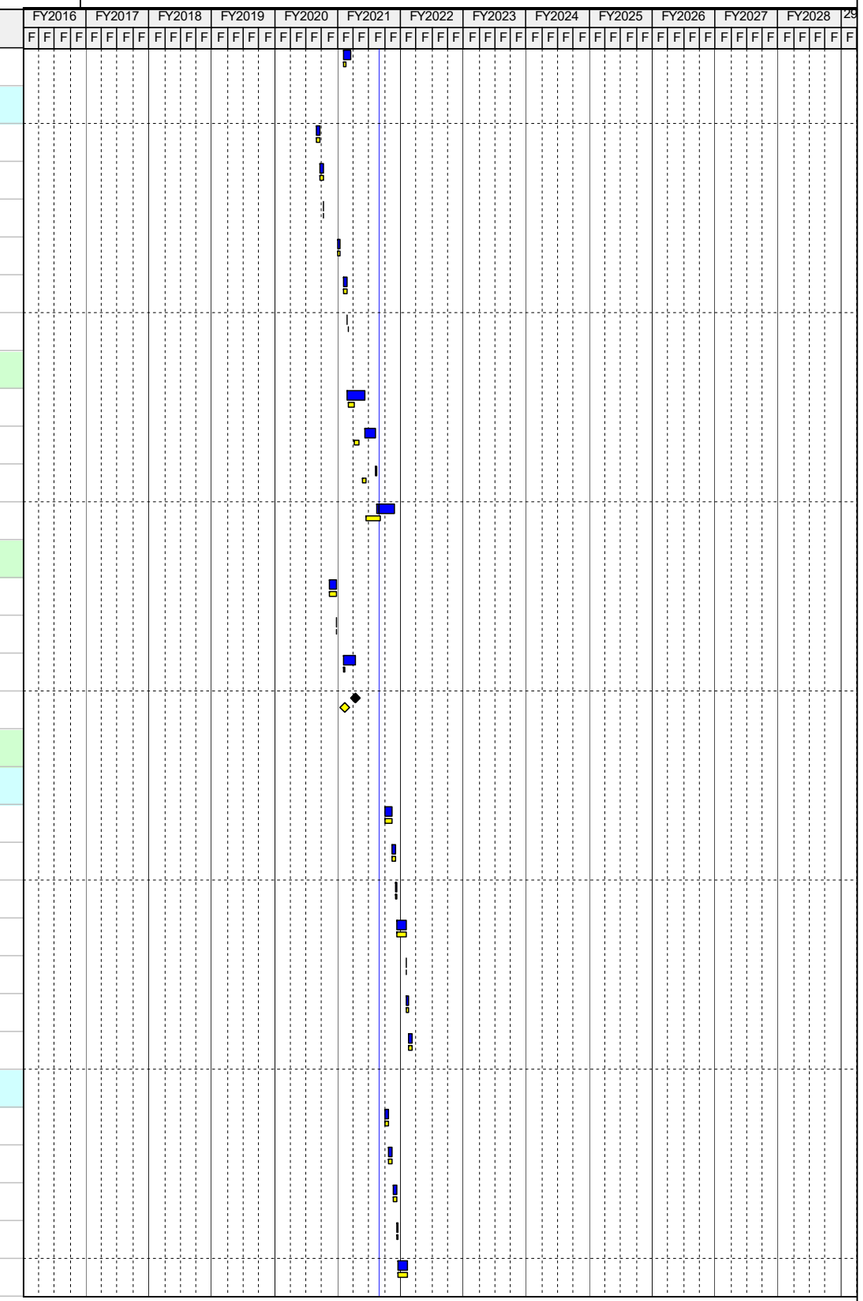
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P356D140da	Primary bus assembly drawings D365	22-Sep-20 A	06-Oct-20 A	22-Sep-20	06-Oct-20	100%	0	$0	Chris Pappas
P356D140dc	Transformer drawing renumber D346	23-Sep-20 A	23-Sep-20 A	23-Sep-20	23-Sep-20	100%	0	$0	Chris Pappas
P356D140dd	Resonant capacitor drawing renumber D331	16-Oct-20 A	20-Oct-20 A	16-Oct-20	20-Oct-20	100%	0	$0	Chris Pappas
P356D150da	Finalize model for oil distribution system	20-Oct-20 A	22-Oct-20 A	20-Oct-20	22-Oct-20	100%	0	$0	Chris Pappas
P356D555	Redesign based on prototype results	05-Apr-21 A	27-Jul-21	03-Feb-21	16-Mar-21	40%	40	$45,482	Chris Pappas
P356D150db	HV tank oil distribution design optimization	30-Aug-21	14-Sep-21	09-Jun-21	23-Jun-21	0%	11	$22,680	Chris Pappas
P.03.05.06.02.03	High Voltage Enclosure	15-Aug-19 A	15-Oct-20 A	15-Aug-19	15-Oct-20		0	$0	
P.03.05.06.02.03.01	Electronic Design	15-Aug-19 A	30-Aug-19 A	15-Aug-19	30-Aug-19		0	$0	
P356D190	HV Enclosure - Capacitor Bank Design	15-Aug-19 A	30-Aug-19 A	15-Aug-19	30-Aug-19	100%	0	$0	Chris Pappas
P.03.05.06.02.03.02	Mechanical Design	27-Mar-20 A	15-Oct-20 A	27-Mar-20	15-Oct-20		0	$0	
P356D210	Capacitor bank mechanical design	27-Mar-20 A	31-Mar-20 A	27-Mar-20	31-Mar-20	100%	0	$0	Chris Pappas
P356D210a	Capacitor bank mechanical design (Apr20>)	21-May-20 A	30-Jul-20 A	21-May-20	30-Jul-20	100%	0	$0	Chris Pappas
P356D220	Check drawings	31-Jul-20 A	15-Oct-20 A	31-Jul-20	15-Oct-20	100%	0	$0	Chris Pappas
P.03.05.06.02.04	Charging Supply	01-Aug-19 A	15-Oct-19 A	01-Aug-19	15-Oct-19		0	$0	
P356D230	Update Power Supply Design	01-Aug-19 A	30-Aug-19 A	01-Aug-19	30-Aug-19	100%	0	$0	Chris Pappas
P356D230b	Update Power Supply Design - Continued	03-Sep-19 A	15-Oct-19 A	03-Sep-19	15-Oct-19	100%	0	$0	Chris Pappas
P.03.05.06.02.05	Control System	01-Aug-19 A	30-Aug-19 A	01-Aug-19	30-Aug-19		0	$0	
P.03.05.06.02.05.01	MPS - PPS	01-Aug-19 A	30-Aug-19 A	01-Aug-19	30-Aug-19		0	$0	
P356D280	MPS-PPS Interlocks Conceptual Design	01-Aug-19 A	30-Aug-19 A	01-Aug-19	30-Aug-19	100%	0	$0	Chris Pappas
P.03.05.06.02.05.02	PXI	12-Aug-19 A	30-Aug-19 A	12-Aug-19	30-Aug-19		0	$0	
P356D290	PXI Block Diagram	12-Aug-19 A	30-Aug-19 A	12-Aug-19	30-Aug-19	100%	0	$0	Chris Pappas
P356D300	PXI Programming	15-Aug-19 A	30-Aug-19 A	15-Aug-19	30-Aug-19	100%	0	$0	Chris Pappas
P.03.05.06.02.06	Test Article Procurement	01-Aug-19 A	18-Dec-20 A	01-Aug-19	30-Nov-20		0	$16,412	
P356D370	Procure Diodes for Test Article	01-Aug-19 A	21-Aug-19 A	01-Aug-19	21-Aug-19	100%	0	$0	Chris Pappas
P356D380	Fabrication of Diodes for Test Article	03-Sep-19 A	13-Jan-20 A	03-Sep-19	13-Jan-20	100%	0	$0	Chris Pappas
P356D310	Procure Pulse Transformers Test Article	03-Sep-19 A	24-Sep-19 A	03-Sep-19	24-Sep-19	100%	0	$0	Chris Pappas
P356D340	Procure Resonant Capacitors for Test Article	03-Sep-19 A	24-Sep-19 A	03-Sep-19	24-Sep-19	100%	0	$0	Chris Pappas
P356D400	Procure Rectifier PCBs for Test Article	03-Sep-19 A	23-Sep-19 A	03-Sep-19	23-Sep-19	100%	0	$0	Chris Pappas
P356D320	Fabrication of Pulse Transformers for Test Article	24-Sep-19 A	27-Nov-19 A	24-Sep-19	27-Nov-19	100%	0	$0	Chris Pappas
P356D410	Fabrication of Rectifier PCBs for Test Article	24-Sep-19 A	17-Jan-20 A	24-Sep-19	17-Jan-20	100%	0	$0	Chris Pappas
P356D350	Fabrication of Resonant Capacitors for Test Article	25-Sep-19 A	17-Jan-20 A	25-Sep-19	17-Jan-20	100%	0	$0	Chris Pappas
P356D330	Fabrication of Pulse Transformers for Test Article Complete (MS)		27-Nov-19 A		27-Nov-19	100%	0	$0	Chris Pappas
P356D390	Fabrication of Diodes for Test Article Complete (MS)		06-Jan-20 A		06-Jan-20	100%	0	$0	Chris Pappas



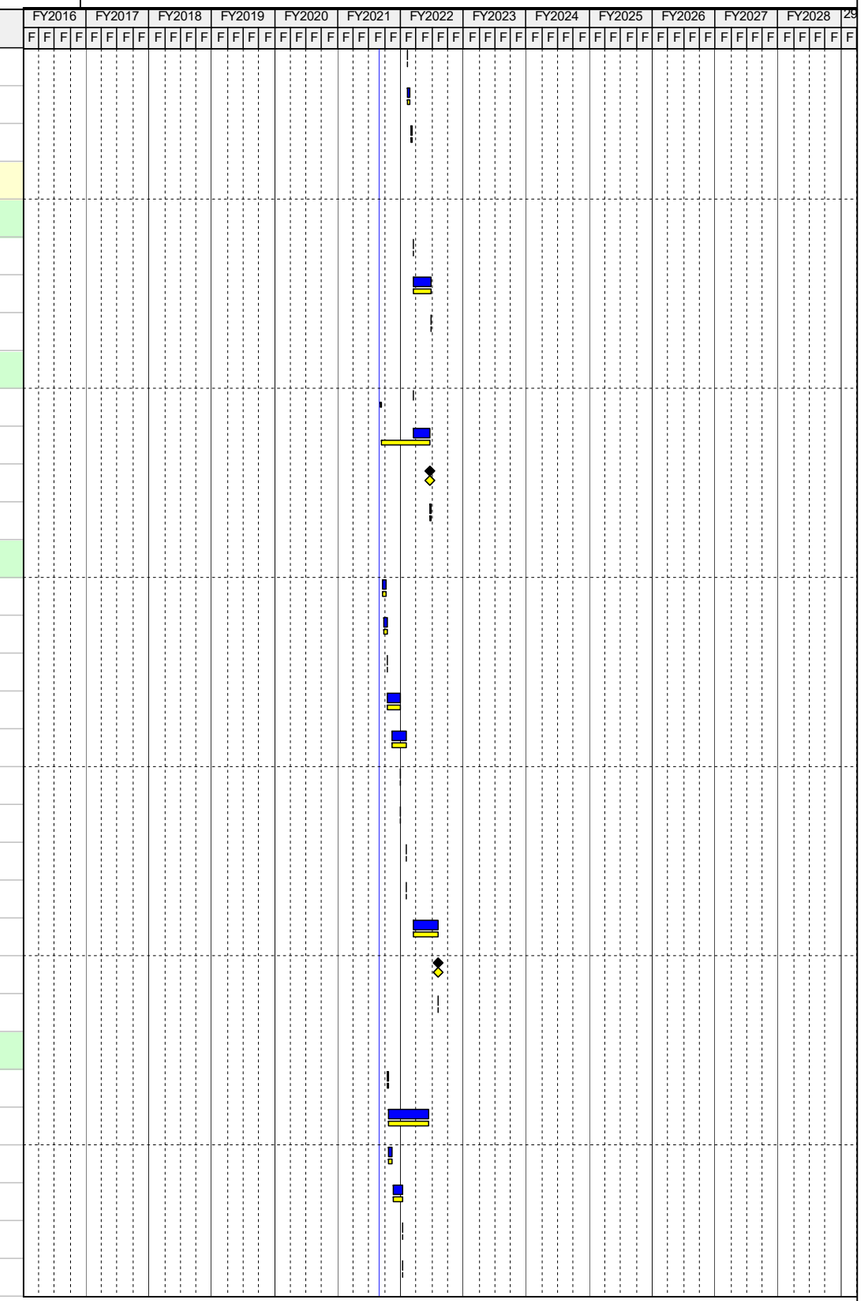
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P356D430	Receive Rectifier PCBs for Test Article	17-Jan-20 A	17-Jan-20 A	17-Jan-20	17-Jan-20	100%	0	$0	Chris Pappas
P356D365	Receive Resonant Capacitors for Test Article	17-Jan-20 A	17-Jan-20 A	17-Jan-20	17-Jan-20	100%	0	$0	Chris Pappas
P356D360	Fabrication of Resonant Capacitors for Test Article Complete (MS)		17-Jan-20 A		17-Jan-20	100%	0	$0	Chris Pappas
P356D420	Fabrication of Rectifier PCBs for Test Article Complete (MS)		17-Jan-20 A		17-Jan-20	100%	0	$0	Chris Pappas
P.03.05.06.02.06.00	Freewheeling diodes	27-Apr-20 A	22-Sep-20 A	27-Apr-20	22-Sep-20		0	$0	
P356D370b	Procure and Receive diodes & PCBs for test article	27-Apr-20 A	22-Jun-20 A	27-Apr-20	22-Jun-20	100%	0	$0	Chris Pappas
P356D380b	Fabricate/Assemble diodes for test article	01-Jul-20 A	22-Sep-20 A	01-Jul-20	22-Sep-20	100%	0	$0	Chris Pappas
P.03.05.06.02.06.01	Pulse Transformer Windings	01-Jun-20 A	18-Dec-20 A	01-Jun-20	10-Nov-20		0	$4,270	
P356D550	Procure 2nd set of XFMR windings for test article	01-Jun-20 A	19-Jun-20 A	01-Jun-20	19-Jun-20	100%	0	$0	Chris Pappas
P356D660	Fab 2nd set of XFMR windings for test article	22-Jun-20 A	30-Sep-20 A	22-Jun-20	30-Sep-20	100%	0	$0	Chris Pappas
P356D583	Procure and Receive transformer mounting hardware	22-Jun-20 A	13-Jul-20 A	22-Jun-20	13-Jul-20	100%	0	$0	Chris Pappas
P356D580	Receive 2nd set of XFMR windings for test article	20-Oct-20 A	20-Oct-20 A	20-Oct-20	20-Oct-20	100%	0	$0	Chris Pappas
P356D590	Fab 2nd set of XFMR windings for test article Complete (MS)		20-Oct-20 A		20-Oct-20	100%	0	$0	Chris Pappas
P356D591	Build XFMRs	02-Nov-20 A	03-Nov-20 A	02-Nov-20	03-Nov-20	100%	0	$2,630	Chris Pappas
P356D592	Initial Testing of XFMRs	04-Nov-20 A	18-Dec-20 A	04-Nov-20	10-Nov-20	100%	0	$1,640	Chris Pappas
P.03.05.06.02.06.02	Rectifier PCBs	01-Jun-20 A	20-Oct-20 A	01-Jun-20	20-Oct-20		0	$0	
P356D408	Procure 2nd set of rectifier PCBs for test article	01-Jun-20 A	11-Jun-20 A	01-Jun-20	11-Jun-20	100%	0	$0	Chris Pappas
P356D409	Fabricate 2nd set of rectifier PCBs for test article	12-Jun-20 A	22-Sep-20 A	12-Jun-20	22-Sep-20	100%	0	$0	Chris Pappas
P356D1031	Procure mounting hardware for rectifier PCBs	01-Jul-20 A	06-Aug-20 A	01-Jul-20	06-Aug-20	100%	0	$0	Chris Pappas
P356D1053	Fabricate mounting hardware for rectifier PCBs	13-Aug-20 A	22-Sep-20 A	13-Aug-20	22-Sep-20	100%	0	$0	Chris Pappas
P356D411	Receive 2nd set of rectifier PCBs for test article	23-Sep-20 A	23-Sep-20 A	23-Sep-20	23-Sep-20	100%	0	$0	Chris Pappas
P356D1063	Receive mounting hardware for rectifier PCBs	23-Sep-20 A	23-Sep-20 A	23-Sep-20	23-Sep-20	100%	0	$0	Chris Pappas
P356D650	Assemble 2nd Set Rectifier for Test Article	24-Sep-20 A	20-Oct-20 A	24-Sep-20	20-Oct-20	100%	0	$0	Chris Pappas
P.03.05.06.02.06.03	Resonant Capacitors and Assembly Parts	27-Mar-20 A	18-Dec-20 A	27-Mar-20	16-Nov-20		0	$4,920	
P356D610	Procure 2nd set of resonant capacitors for test article	27-Mar-20 A	31-Mar-20 A	27-Mar-20	31-Mar-20	100%	0	$0	Chris Pappas
P356D615	Fabrication of 2nd set of resonant capacitors for test article	06-Apr-20 A	15-Jul-20 A	06-Apr-20	15-Jul-20	100%	0	$0	Chris Pappas
P356D620	Procure assembly hardware for resonant capacitors for test article	15-Jun-20 A	06-Aug-20 A	15-Jun-20	06-Aug-20	100%	0	$0	Chris Pappas
P356D680	Receive 2nd set of resonant capacitors & hardware for test article	15-Jul-20 A	15-Jul-20 A	15-Jul-20	15-Jul-20	100%	0	$0	Chris Pappas
P356D690	Fabrication of 2nd set of Resonant capacitors complete (MS)		15-Jul-20 A		15-Jul-20	100%	0	$0	Chris Pappas
P356D600	Fabrication of assembly hardware for resonant capacitors for test article	13-Aug-20 A	23-Sep-20 A	13-Aug-20	23-Sep-20	100%	0	$0	Chris Pappas
P356D691	Fabrication Assembly Hardware for resonant capacitors for test article (MS)		23-Sep-20 A		23-Sep-20	100%	0	$0	Chris Pappas
P356D681	Receive Assembly Hardware for resonant capacitors for test article	24-Sep-20 A	24-Sep-20 A	24-Sep-20	24-Sep-20	100%	0	$0	Chris Pappas
P356D639	Delivery of remaining 2nd set of resonant capacitors & hardware for test article	02-Nov-20 A	04-Nov-20 A	02-Nov-20	04-Nov-20	100%	0	$0	Chris Pappas



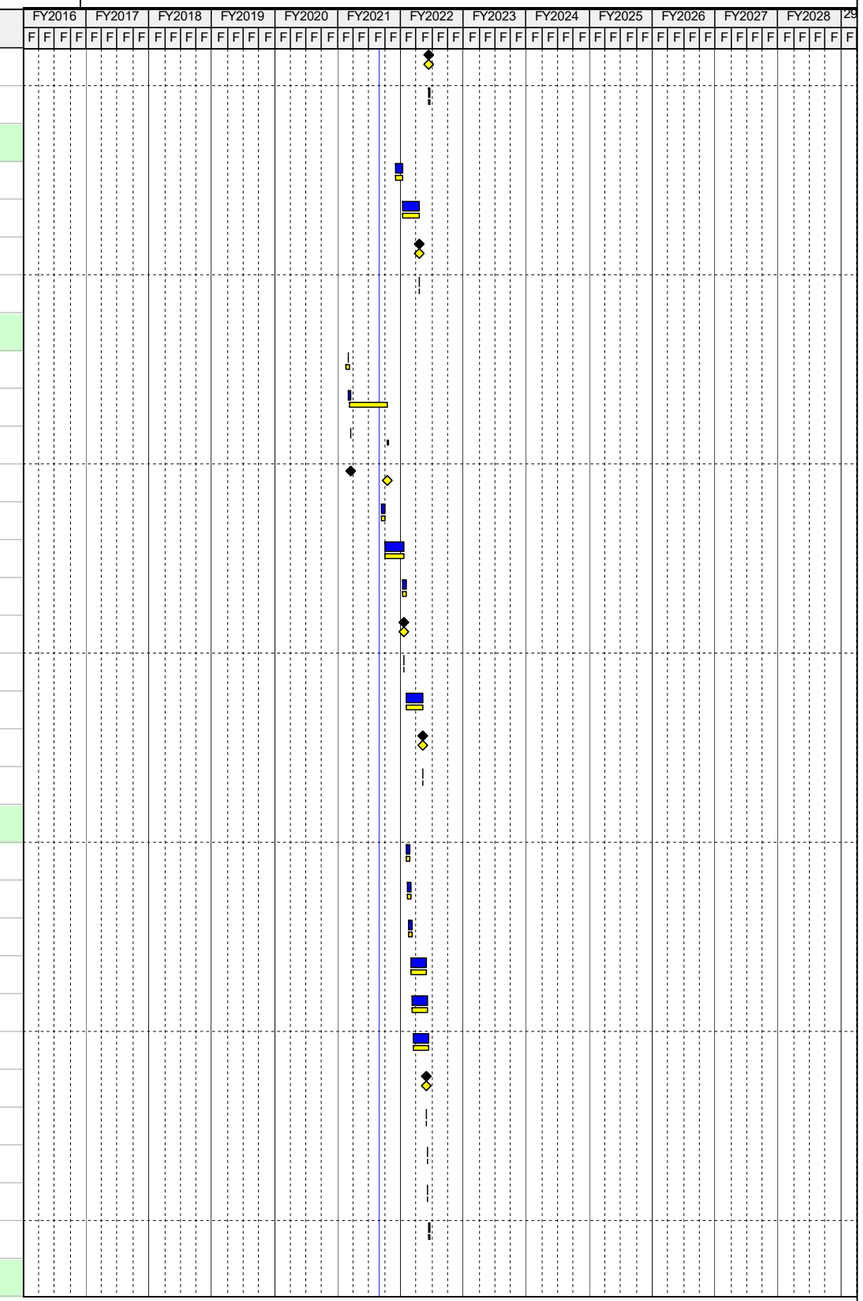
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P356D640	Assembly of resonant capacitors for test article	05-Nov-20 A	18-Dec-20 A	05-Nov-20	16-Nov-20	100%	0	$4,920	Chris Pappas
P.03.05.06.02.06.04	Safety Enclosure Items and Parts	01-Jun-20 A	24-Nov-20 A	01-Jun-20	30-Nov-20		0	$7,223	
P356D810	Procure new tank basket	01-Jun-20 A	18-Jun-20 A	01-Jun-20	18-Jun-20	100%	0	$0	Chris Pappas
P356D812	Fabricate new tank basket	19-Jun-20 A	14-Jul-20 A	19-Jun-20	14-Jul-20	100%	0	$0	Chris Pappas
P356D814	Receive new tank basket	15-Jul-20 A	15-Jul-20 A	15-Jul-20	15-Jul-20	100%	0	$0	Chris Pappas
P356D800	Procure extended capacitor plates	01-Oct-20 A	14-Oct-20 A	01-Oct-20	14-Oct-20	100%	0	$0	Chris Pappas
P356D802	Fabricate extended capacitor plates	02-Nov-20 A	23-Nov-20 A	02-Nov-20	25-Nov-20	100%	0	$0	Chris Pappas
P356D804	Receive extended capacitor plates	24-Nov-20 A	24-Nov-20 A	30-Nov-20	30-Nov-20	100%	0	$7,223	Chris Pappas
P.03.05.06.02.07	Test Article Testing	25-Nov-20 A	27-Aug-21	01-Dec-20	08-Jun-21		63	$186,405	
P356D500	Test article assembly	25-Nov-20 A	05-Mar-21 A	01-Dec-20	04-Jan-21	100%	0	$42,911	Chris Pappas
P356D1043	Test article initial testing dummy load	08-Mar-21 A	11-May-21 A	05-Jan-21	02-Feb-21	100%	0	$16,853	Chris Pappas
P356D1045	Relocate tank and lam bus to RFTF	12-May-21 A	14-May-21 A	22-Feb-21	12-Mar-21	100%	0	$44,572	Chris Pappas
P356D510	Test article testing into RFTF klystron(s)	17-May-21 A	27-Aug-21	15-Mar-21	08-Jun-21	15%	63	$82,070	Chris Pappas
P.03.05.06.02.08	Final Design Review	17-Aug-20 A	12-Jan-21 A	17-Aug-20	13-Nov-20		0	$2,956	
P356D520	Prep for FDR Upgraded Modulator Systems (RFQ and DTL)	17-Aug-20 A	21-Sep-20 A	17-Aug-20	21-Sep-20	100%	0	$0	Chris Pappas
P356D97	FDR Upgraded Modulator Systems (RFQ and DTL)	22-Sep-20 A	22-Sep-20 A	22-Sep-20	22-Sep-20	100%	0	$0	Chris Pappas
P356D540	FDR Response	02-Nov-20 A	12-Jan-21 A	02-Nov-20	13-Nov-20	100%	0	$2,956	Chris Pappas
P356MS005	Response to Final Design Review of the Upgraded Modulator Systems Completed (MS)		12-Jan-21 A		13-Nov-20	100%	0	$0	Chris Pappas
P.03.05.06.02.09	Additional Designs Identified During Test Article Testing	01-Jul-21	10-Dec-21	01-Jul-21	10-Dec-21		113	$177,251	
P.03.05.06.02.09.01	New Windings	01-Jul-21	06-Dec-21	01-Jul-21	06-Dec-21		109	$104,873	
P356D1123	Electrical Design - New Windings	01-Jul-21*	10-Aug-21	01-Jul-21	10-Aug-21	0%	28	$13,053	Chris Pappas
P356D1133	Mechanical Design - New Windings	11-Aug-21	31-Aug-21	11-Aug-21	31-Aug-21	0%	15	$16,024	Chris Pappas
P356D1143	Procure - New Windings	01-Sep-21	08-Sep-21	01-Sep-21	08-Sep-21	0%	5	$860	Chris Pappas
P356D1153	Fabricate - New Windings	09-Sep-21	03-Nov-21	09-Sep-21	03-Nov-21	0%	40	$0	Chris Pappas
P356D1163	Receive - New Windings	04-Nov-21	04-Nov-21	04-Nov-21	04-Nov-21	0%	1	$54,570	Chris Pappas
P356D1173	Install - New Windings	05-Nov-21	18-Nov-21	05-Nov-21	18-Nov-21	0%	10	$11,461	Chris Pappas
P356D1183	Test - New Windings	19-Nov-21	06-Dec-21	19-Nov-21	06-Dec-21	0%	10	$8,905	Chris Pappas
P.03.05.06.02.09.02	Series Choke	01-Jul-21	10-Dec-21	01-Jul-21	10-Dec-21		113	$72,378	
P356D1193	Electrical Design - Series Choke	01-Jul-21*	26-Jul-21	01-Jul-21	26-Jul-21	0%	17	$7,870	Chris Pappas
P356D1197	Mounting HDWR & Buses Design	27-Jul-21	16-Aug-21	27-Jul-21	16-Aug-21	0%	15	$16,024	Chris Pappas
P356D1203	Mechanical Design - Series Choke	17-Aug-21	07-Sep-21	17-Aug-21	07-Sep-21	0%	15	$16,024	Chris Pappas
P356D1213	Procure - Series Choke	08-Sep-21	14-Sep-21	08-Sep-21	14-Sep-21	0%	5	$860	Chris Pappas
P356D1223	Fabricate - Series Choke	15-Sep-21	09-Nov-21	15-Sep-21	09-Nov-21	0%	40	$0	Chris Pappas



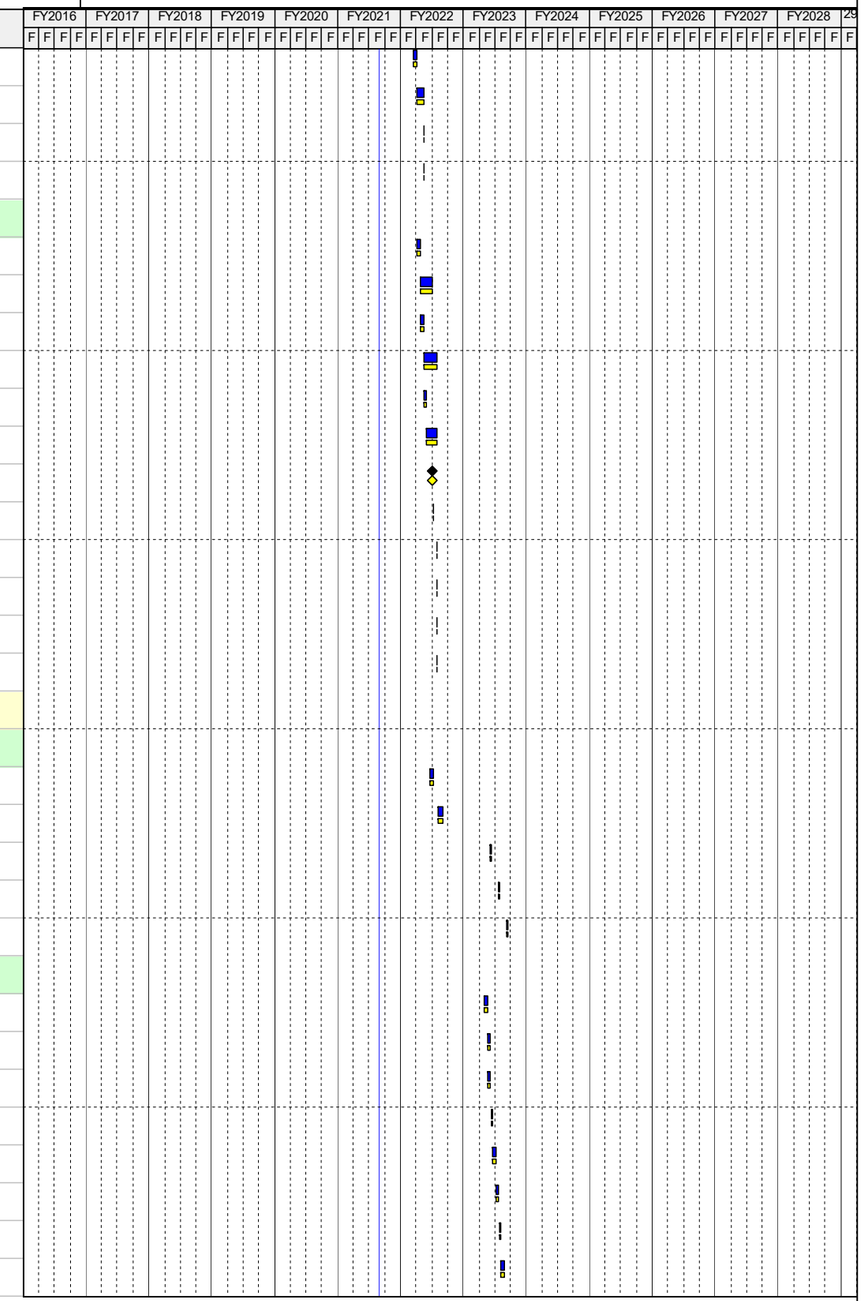
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P356D1233	Receive - Series Choke	10-Nov-21	10-Nov-21	10-Nov-21	10-Nov-21	0%	1	$11,235	Chris Pappas
P356D1243	Install - Series Choke	11-Nov-21	24-Nov-21	11-Nov-21	24-Nov-21	0%	10	$11,461	Chris Pappas
P356D1253	Test - Series Choke	29-Nov-21	10-Dec-21	29-Nov-21	10-Dec-21	0%	10	$8,905	Chris Pappas
P.03.05.06.03	Procure/Fab - Upgrade RFQ/DTL Modulators - (NEP35630)	01-Dec-20 A	06-May-22	16-Nov-20	06-May-22		223	$927,635	
P.03.05.06.03.01	Serial Chokes	13-Dec-21	28-Mar-22	13-Dec-21	28-Mar-22		68	$34,200	
P356P1158	Procure Series Chokes	13-Dec-21	14-Dec-21	13-Dec-21	14-Dec-21	0%	2	$495	Chris Pappas
P356P1168	Fabricate Series Chokes	15-Dec-21	25-Mar-22	15-Dec-21	25-Mar-22	0%	65	$0	Chris Pappas
P356P1198	Receive Series Chokes	28-Mar-22	28-Mar-22	28-Mar-22	28-Mar-22	0%	1	$33,705	Chris Pappas
P.03.05.06.03.07	HV Receptalces Procurement	13-Dec-21	24-Mar-22	09-Jun-21	24-Mar-22		66	$100,378	
P356P1135	Procure boost transformer windings	13-Dec-21	14-Dec-21	09-Jun-21	10-Jun-21	0%	2	$1,169	Chris Pappas
P356P1134	Fabricate boost transformer windings	15-Dec-21	23-Mar-22	11-Jun-21	23-Mar-22	0%	63	$0	Chris Pappas
P356P1137	Fabrication of boost transformer windings complete (MS)		23-Mar-22		23-Mar-22	0%	0	$0	Chris Pappas
P356P1138	Receive boost transformer windings	24-Mar-22	24-Mar-22	24-Mar-22	24-Mar-22	0%	1	$99,208	Chris Pappas
P.03.05.06.03.08	Resonant capacitors and Free-Wheeling Diodes Procurement	18-Jun-21	06-May-22	18-Jun-21	06-May-22		218	$141,854	
P356P740	Procure resonant capacitors	18-Jun-21	09-Jul-21	18-Jun-21	09-Jul-21	0%	15	$462	Chris Pappas
P356P1060	Procure resonant cap assembly hardware	25-Jun-21	16-Jul-21	25-Jun-21	16-Jul-21	0%	15	$2,713	Chris Pappas
P356P1064	Procure free-wheeling diode assemblies	19-Jul-21	19-Jul-21	19-Jul-21	19-Jul-21	0%	1	$1,229	Chris Pappas
P356P1065	Fabricate free-wheeling diode assemblies	20-Jul-21	28-Sep-21	20-Jul-21	28-Sep-21	0%	50	$0	Chris Pappas
P356P1061	Fabricate resonant cap assembly hardware	11-Aug-21	03-Nov-21	11-Aug-21	03-Nov-21	0%	60	$0	Chris Pappas
P356P1066	Fabrication of free-wheeling diode assemblies complete (MS)	29-Sep-21	29-Sep-21	29-Sep-21	29-Sep-21	0%	0	$0	Chris Pappas
P356P1067	Receive free-wheeling diode assemblies	29-Sep-21	29-Sep-21	29-Sep-21	29-Sep-21	0%	1	$21,642	Chris Pappas
P356P1062	Fabrication of resonant cap assembly hardware complete (MS)	04-Nov-21	04-Nov-21	04-Nov-21	04-Nov-21	0%	0	$0	Chris Pappas
P356P1063	Receive resonant cap assembly hardware	04-Nov-21	04-Nov-21	04-Nov-21	04-Nov-21	0%	1	$66,381	Chris Pappas
P356P750	Fabricate resonant capacitors	13-Dec-21	05-May-22	13-Dec-21	05-May-22	0%	95	$0	Chris Pappas
P356P760	Fabrication of resonant capacitors complete (MS)		05-May-22		05-May-22	0%	0	$0	Chris Pappas
P356P770	Receive resonant capacitors	06-May-22	06-May-22	06-May-22	06-May-22	0%	1	$49,428	Chris Pappas
P.03.05.06.03.09	Rectifiers Procurement	20-Jul-21	17-Mar-22	20-Jul-21	17-Mar-22		162	$298,589	
P356P820	Procure diode PCBs	20-Jul-21	20-Jul-21	20-Jul-21	20-Jul-21	0%	1	$1,229	Chris Pappas
P356P830	Fabricate diode PCBs	21-Jul-21	16-Mar-22	21-Jul-21	16-Mar-22	0%	160	$0	Chris Pappas
P356P1073	Procure rectifier assembly hardware	27-Jul-21	16-Aug-21	27-Jul-21	16-Aug-21	0%	15	$2,713	Chris Pappas
P356P1074	Fabricate rectifier assembly hardware	17-Aug-21	12-Oct-21	17-Aug-21	12-Oct-21	0%	40	$0	Chris Pappas
P356P1075	Fabrication of rectifier assembly hardware complete (MS)	13-Oct-21	13-Oct-21	13-Oct-21	13-Oct-21	0%	0	$0	Chris Pappas
P356P1076	Receive rectifier assembly hardware	13-Oct-21	13-Oct-21	13-Oct-21	13-Oct-21	0%	1	$83,997	Chris Pappas



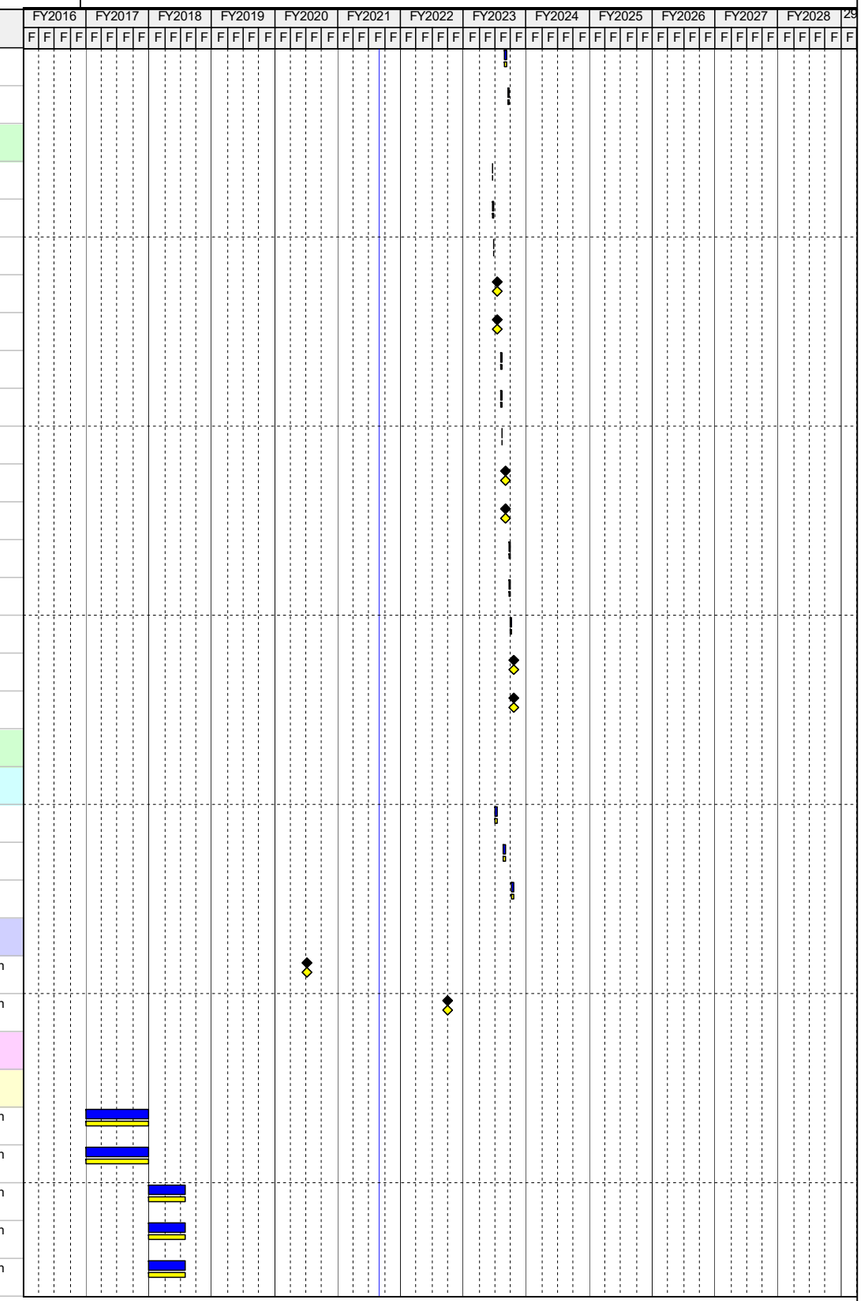
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P356P840	Fabrication of diode PCBs complete (MS)		16-Mar-22		16-Mar-22	0%	0	$0	Chris Pappas
P356P850	Receive diode PCBs	17-Mar-22	17-Mar-22	17-Mar-22	17-Mar-22	0%	1	$210,650	Chris Pappas
P.03.05.06.03.11	Misc. Cable, Connectors, Hardware Procurement	01-Sep-21	20-Jan-22	01-Sep-21	20-Jan-22		91	$48,736	
P356P410	Procure Misc. Cable, Connectors, Hardware	01-Sep-21	13-Oct-21	01-Sep-21	13-Oct-21	0%	30	$4,675	Chris Pappas
P356P420	Fabricate Misc. Cable, Connectors, Hardware	14-Oct-21	19-Jan-22	14-Oct-21	19-Jan-22	0%	60	$0	Chris Pappas
P356P430	Fabrication of Misc. Cable, Connectors, Hardware Complete (MS)		19-Jan-22		19-Jan-22	0%	0	$0	Chris Pappas
P356P440	Receive Misc. Cable, Connectors, Hardware	20-Jan-22	20-Jan-22	20-Jan-22	20-Jan-22	0%	1	$44,060	Chris Pappas
P.03.05.06.03.12	Procure Cap Bank Capacitors	01-Dec-20 A	10-Feb-22	16-Nov-20	10-Feb-22		163	$60,745	
P356P450	Procure cap bank capacitors	01-Dec-20 A	02-Dec-20 A	16-Nov-20	08-Dec-20	100%	0	$579	Chris Pappas
P356P460	Fabricate cap bank capacitors	03-Dec-20 A	17-Dec-20 A	09-Dec-20	19-Jul-21	100%	0	$0	Chris Pappas
P356P480	Receive cap bank capacitors	18-Dec-20 A	18-Dec-20 A	20-Jul-21	20-Jul-21	100%	0	$23,699	Chris Pappas
P356P470	Fabrication of cap bank capacitors complete (MS)		18-Dec-20 A		19-Jul-21	100%	0	$0	Chris Pappas
P356P290	Procure filter capacitors	11-Jun-21*	01-Jul-21	11-Jun-21	01-Jul-21	0%	15	$462	Chris Pappas
P356P300	Fabricate filter capacitors	02-Jul-21	18-Oct-21	02-Jul-21	18-Oct-21	0%	75	$0	Chris Pappas
P356P780	Procure modification of end plates	14-Oct-21	03-Nov-21	14-Oct-21	03-Nov-21	0%	15	$2,814	Chris Pappas
P356P310	Fabrication of filter capacitors complete (MS)		18-Oct-21		18-Oct-21	0%	0	$0	Chris Pappas
P356P320	Receive filter capacitors	19-Oct-21	19-Oct-21	19-Oct-21	19-Oct-21	0%	1	$11,201	Chris Pappas
P356P790	Fabricate modified end plate parts	04-Nov-21	09-Feb-22	04-Nov-21	09-Feb-22	0%	60	$0	Chris Pappas
P356P800	Modification of end plates complete (MS)		09-Feb-22		09-Feb-22	0%	0	$0	Chris Pappas
P356P810	Receive Modified end plates	10-Feb-22	10-Feb-22	10-Feb-22	10-Feb-22	0%	1	$21,990	Chris Pappas
P.03.05.06.03.14	Laminated Buses	04-Nov-21	17-Mar-22	04-Nov-21	17-Mar-22		86	$166,110	
P356P860	Procure modification switch plate parts	04-Nov-21	24-Nov-21	04-Nov-21	24-Nov-21	0%	15	$963	Chris Pappas
P356P530	Procure laminated busses	11-Nov-21	03-Dec-21	11-Nov-21	03-Dec-21	0%	15	$481	Chris Pappas
P356P1128	Procure alignment fixture and support for lam bus	18-Nov-21	10-Dec-21	18-Nov-21	10-Dec-21	0%	15	$2,814	Chris Pappas
P356P870	Fabricate modified switch plate parts	29-Nov-21	02-Mar-22	29-Nov-21	02-Mar-22	0%	60	$0	Chris Pappas
P356P540	Fabricate laminated busses	06-Dec-21	09-Mar-22	06-Dec-21	09-Mar-22	0%	60	$0	Chris Pappas
P356P1130	Fabrication of alignment fixture and support for lam bus	13-Dec-21	16-Mar-22	13-Dec-21	16-Mar-22	0%	60	$0	Chris Pappas
P356P880	Fabrication of modified switch plate parts complete (MS)		02-Mar-22		02-Mar-22	0%	0	$0	Chris Pappas
P356P890	Receive modified switch plate parts	03-Mar-22	03-Mar-22	03-Mar-22	03-Mar-22	0%	1	$76,767	Chris Pappas
P356P560	Receive laminated busses	10-Mar-22	10-Mar-22	10-Mar-22	10-Mar-22	0%	1	$36,954	Chris Pappas
P356P550	Fabrication of laminated busses complete (MS)	10-Mar-22	10-Mar-22	10-Mar-22	10-Mar-22	0%	0	$0	Chris Pappas
P356P1129	Receive alignment fixture and support for lam bus	17-Mar-22	17-Mar-22	17-Mar-22	17-Mar-22	0%	1	$48,131	Chris Pappas
P.03.05.06.03.15	Power Supply Procurement RFQ Only	13-Dec-21	17-Feb-22	13-Dec-21	17-Feb-22		41	$47,085	



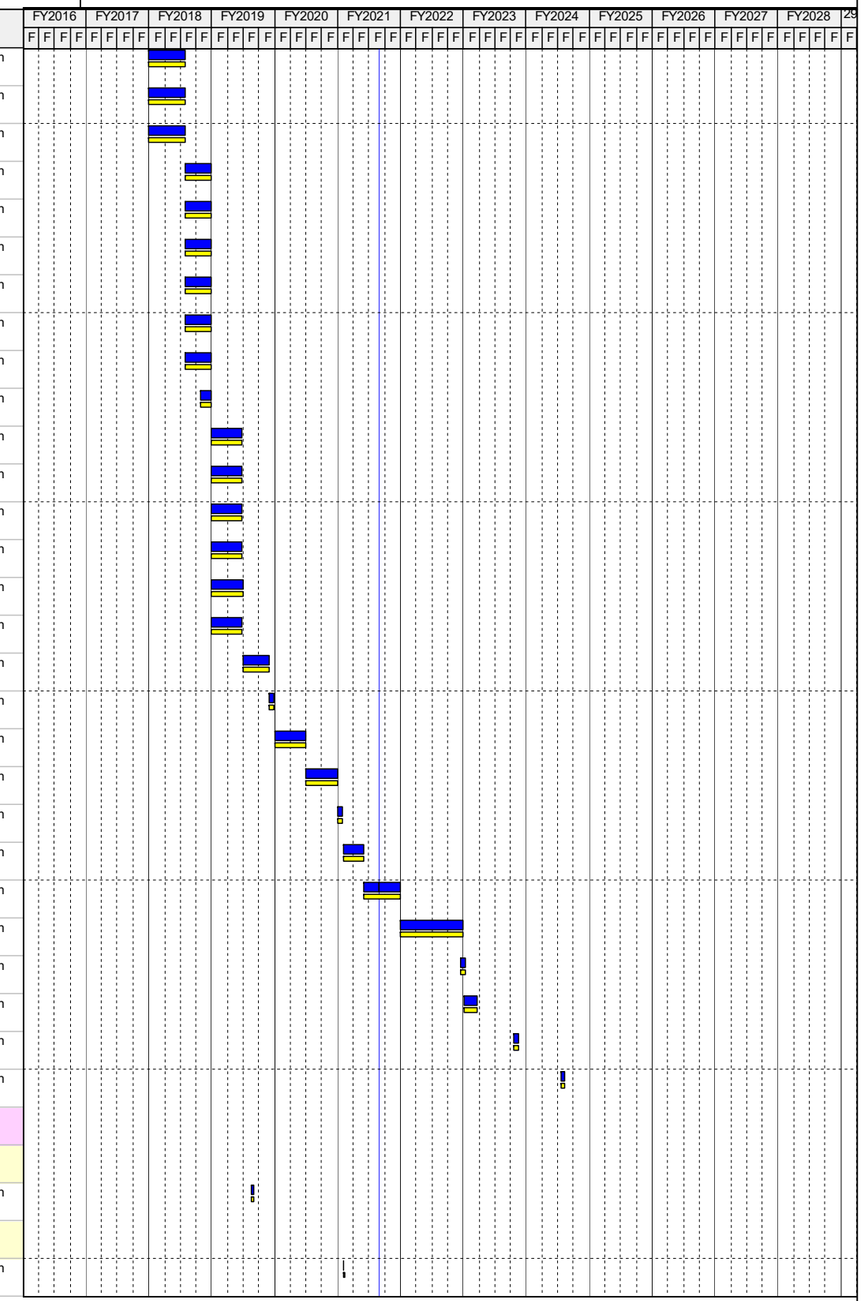
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P356P1101	Procure cables and fuses RFQ only	13-Dec-21	04-Jan-22	13-Dec-21	04-Jan-22	0%	10	$1,761	Chris Pappas
P356P1102	Fabricate cables and fuses	05-Jan-22	16-Feb-22	05-Jan-22	16-Feb-22	0%	30	$0	Chris Pappas
P356P1103	Fabrication of cables and fuses complete (MS)	17-Feb-22	17-Feb-22	17-Feb-22	17-Feb-22	0%	0	$0	Chris Pappas
P356P1104	Receive cables and fuses	17-Feb-22	17-Feb-22	17-Feb-22	17-Feb-22	0%	1	$45,324	Chris Pappas
P.03.05.06.03.16	HV Tank Assembly	05-Jan-22	29-Apr-22	05-Jan-22	29-Apr-22		81	$29,938	
P356P1106	Procure primary bus feeds	05-Jan-22	26-Jan-22	05-Jan-22	26-Jan-22	0%	15	$2,814	Chris Pappas
P356P1107	Fabricate primary bus feeds	27-Jan-22	06-Apr-22	27-Jan-22	06-Apr-22	0%	50	$0	Chris Pappas
P356P1110	Procure oil distribution manifold assembly	27-Jan-22	16-Feb-22	27-Jan-22	16-Feb-22	0%	15	$2,814	Chris Pappas
P356P1111	Fabricate oil distribution manifold assembly	17-Feb-22	28-Apr-22	17-Feb-22	28-Apr-22	0%	50	$0	Chris Pappas
P356P1114	Procure misc. in-tank hardware incl. additional grate	17-Feb-22	02-Mar-22	17-Feb-22	02-Mar-22	0%	10	$3,612	Chris Pappas
P356P1115	Fabricate misc. in-tank hardware incl additional grate	03-Mar-22	28-Apr-22	03-Mar-22	28-Apr-22	0%	40	$0	Chris Pappas
P356P1108	Fabrication of primary bus feeds complete (MS)		06-Apr-22		06-Apr-22	0%	0	$0	Chris Pappas
P356P1109	Receive primary bus feeds	07-Apr-22	07-Apr-22	07-Apr-22	07-Apr-22	0%	1	$14,589	Chris Pappas
P356P1112	Fabrication of oil distribution manifold assembly complete (MS)	29-Apr-22	29-Apr-22	29-Apr-22	29-Apr-22	0%	0	$0	Chris Pappas
P356P1113	Receive oil distribution manifold assembly	29-Apr-22	29-Apr-22	29-Apr-22	29-Apr-22	0%	1	$3,672	Chris Pappas
P356P1116	Fabrication of misc. in-tank hardware incl. additional gate complete (MS)	29-Apr-22	29-Apr-22	29-Apr-22	29-Apr-22	0%	0	$0	Chris Pappas
P356P1117	Receive misc. in-tank hardware incl. additional gate	29-Apr-22	29-Apr-22	29-Apr-22	29-Apr-22	0%	1	$2,436	Chris Pappas
P.03.05.06.04	Installation - Upgrade RFQ/DTL Modulators	18-Mar-22	19-Jul-23	18-Mar-22	19-Jul-23		331	$499,186	
P.03.05.06.04.00	Subassembly assembly activities	18-Mar-22	14-Jun-23	18-Mar-22	14-Jun-23		308	$64,907	
P356i1121	Assemble rectifier assemblies (9X)	18-Mar-22	12-Apr-22	18-Mar-22	12-Apr-22	0%	18	$13,300	Chris Pappas
P356i1120	Assembly resonant capacitor assemblies (9X)	09-May-22	02-Jun-22	09-May-22	02-Jun-22	0%	18	$27,517	Chris Pappas
P356I940	Modify switch plates with lam bus stubs, caps, IGBTs for RFQ-Mod1	08-Mar-23	10-Mar-23	08-Mar-23	10-Mar-23	0%	3	$8,030	Chris Pappas
P356I950	Modify switch plates with lam bus stubs, caps, IGBTs for DTL-Mod3	25-Apr-23	27-Apr-23	25-Apr-23	27-Apr-23	0%	3	$8,030	Chris Pappas
P356I960	Modify switch plates with lam bus stubs, caps, IGBTs for DTL-Mod5	12-Jun-23	14-Jun-23	12-Jun-23	14-Jun-23	0%	3	$8,030	Chris Pappas
P.03.05.06.04.01	Linac Installation	01-Feb-23	21-Jun-23	01-Feb-23	21-Jun-23		99	$242,329	
P356i010	Installation of in-tank RFQ-Mod1 upgrades incl. rebuild XFMRs	01-Feb-23	21-Feb-23	01-Feb-23	21-Feb-23	0%	15	$32,349	Chris Pappas
P356i070	Upgrade RFQ-Mod1 Power Supply	22-Feb-23	07-Mar-23	22-Feb-23	07-Mar-23	0%	10	$11,569	Chris Pappas
P356i1142	Install RFQ-Mod1 laminated bus, storage caps, and support/alignment equipment	22-Feb-23	07-Mar-23	22-Feb-23	07-Mar-23	0%	10	$27,442	Chris Pappas
P356i1145	Install switch plates and finalize installation RFQ-Mod1	13-Mar-23	17-Mar-23	13-Mar-23	17-Mar-23	0%	5	$11,364	Chris Pappas
P356i70	Installation of in-tank DTL-Mod3 upgrades incl. rebuild XFMRs	20-Mar-23	10-Apr-23	20-Mar-23	10-Apr-23	0%	15	$40,997	Chris Pappas
P356i1143	Install DTL-Mod3 laminated bus, storage caps, and support/alignment equipment	11-Apr-23	24-Apr-23	11-Apr-23	24-Apr-23	0%	10	$27,442	Chris Pappas
P356i1146	Install switch plates and finalize installation DTL-Mod3	28-Apr-23	04-May-23	28-Apr-23	04-May-23	0%	5	$11,364	Chris Pappas
P356i80	Installation of in-tank DTL-Mod5 upgrades incl. rebuild XFMRs	05-May-23	25-May-23	05-May-23	25-May-23	0%	15	$40,997	Chris Pappas



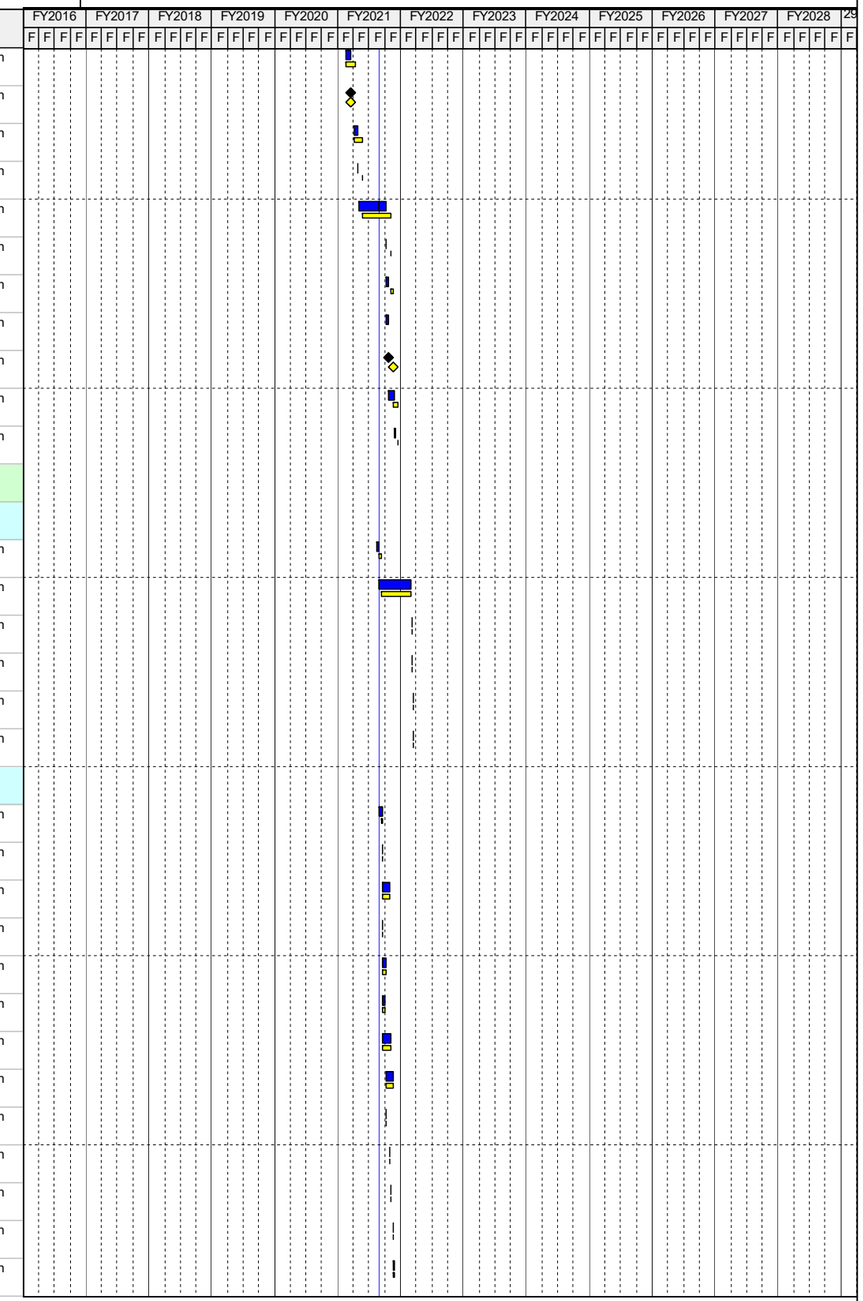
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P356i1144	Install DTL-Mod5 laminated bus, storage caps, and support/alignment equipment	26-May-23	09-Jun-23	26-May-23	09-Jun-23	0%	10	$27,442	Chris Pappas
P356i1147	Install switch plates and finalize installation DTL-Mod5	15-Jun-23	21-Jun-23	15-Jun-23	21-Jun-23	0%	5	$11,364	Chris Pappas
P.03.05.06.04.02	Integration Inspection Initial Testing	20-Mar-23	19-Jul-23	20-Mar-23	19-Jul-23		84	$68,668	
P356I730	Initial testing of RFQ-Mod1 control system	20-Mar-23	21-Mar-23	20-Mar-23	21-Mar-23	0%	2	$5,982	Chris Pappas
P356i040	Inspection of RFQ-Mod1 Upgrades	20-Mar-23	24-Mar-23	20-Mar-23	24-Mar-23	0%	5	$8,484	Chris Pappas
P356i030	Initial system tests of RFQ-Mod1 upgrades	27-Mar-23	29-Mar-23	27-Mar-23	29-Mar-23	0%	3	$5,820	Chris Pappas
P356i1162	RFQ-Mod1 ready for operation (MS)		13-Apr-23		13-Apr-23	0%	0	$0	Chris Pappas
P356i1174	RFQ-Mod1 Upgrade System Documentation Complete (MS)		13-Apr-23		13-Apr-23	0%	0	$0	Chris Pappas
P356i90	Inspection of DTL-Mod3 upgrades	05-May-23	11-May-23	05-May-23	11-May-23	0%	5	$8,484	Chris Pappas
P356i1153	Initial testing of DTL-Mod3 control system	05-May-23	11-May-23	05-May-23	11-May-23	0%	5	$9,887	Chris Pappas
P356i110	Initial system tests of DTL-Mod3 upgrades	12-May-23	16-May-23	12-May-23	16-May-23	0%	3	$5,820	Chris Pappas
P356i1163	DTL-Mod3 ready for operation (MS)		31-May-23		31-May-23	0%	0	$0	Chris Pappas
P356i1184	DTL-Mod3 Upgrade System Documentation Complete (MS)		31-May-23		31-May-23	0%	0	$0	Chris Pappas
P356i100	Inspection of DTL-Mod5 upgrades	22-Jun-23	28-Jun-23	22-Jun-23	28-Jun-23	0%	5	$8,484	Chris Pappas
P356i1154	Initial testing of DTL-Mod5 control system	22-Jun-23	28-Jun-23	22-Jun-23	28-Jun-23	0%	5	$9,887	Chris Pappas
P356i120	Initial system tests of DTL-Mod5 upgrades	29-Jun-23	05-Jul-23	29-Jun-23	05-Jul-23	0%	3	$5,820	Chris Pappas
P356i1164	DTL-Mod5 ready for operation (MS)		19-Jul-23		19-Jul-23	0%	0	$0	Chris Pappas
P356i1194	DTL-Mod5 Upgrade System Documentation Complete (MS)		19-Jul-23		19-Jul-23	0%	0	$0	Chris Pappas
P.03.05.06.04.03	Testing	30-Mar-23	19-Jul-23	30-Mar-23	19-Jul-23		76	$123,282	
P.03.05.06.04.03.01	System Testing	30-Mar-23	19-Jul-23	30-Mar-23	19-Jul-23		76	$123,282	
P356i050	Full power testing of RFQ-Mod1 upgrades	30-Mar-23	13-Apr-23	30-Mar-23	13-Apr-23	0%	10	$26,087	Chris Pappas
P356i130	Full power testing of DTL-Mod3	17-May-23	31-May-23	17-May-23	31-May-23	0%	10	$48,598	Chris Pappas
P356i140	Full power testing of DTL-Mod5	06-Jul-23	19-Jul-23	06-Jul-23	19-Jul-23	0%	10	$48,598	Chris Pappas
P.03.06	New Linac Modulators	03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		730	$3,859,023	
P36MS001	Contract for 3 new modulators awarded (MS)		07-Apr-20 A		07-Apr-20	100%	0	$0	David E. Anderson
P36MS006	Installation and successful functional testing of first SCL HVCM system complete		01-Jul-22		01-Jul-22	0%	0	$0	David E. Anderson
P.03.06.01	Management and System Integration - New Linac Modulators	03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		730	$156,260	
P.03.06.01.01	Management and System Integration - New Linac Modulators - (NEP36110)	03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		730	$156,260	
P361M1	WBS Management P.3.6 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	David E. Anderson
P361M69	CAM management P.3.6.5 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	David E. Anderson
P361M4	WBS Management P.3.6 FY18 (Oct through May)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	David E. Anderson
P361M34	P.3.6.2 Integration Effort FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	David E. Anderson
P361M41	P.3.6.3 Integration Effort FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	David E. Anderson



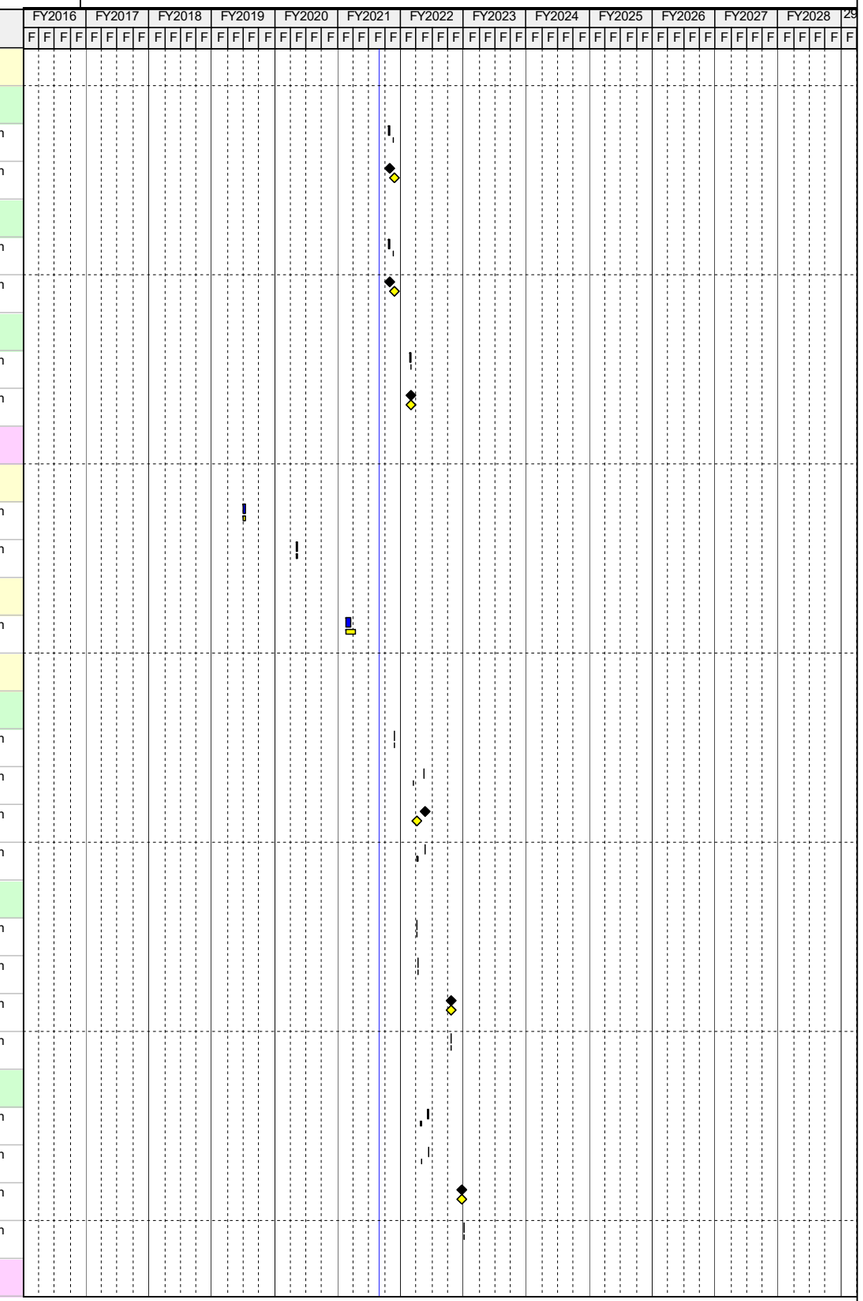
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P361M55	P.3.6.4 Integration Effort FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	David E. Anderson
P361M70	CAM management P.3.6.5 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	David E. Anderson
P361M82	P.3.6.6 Integration Effort FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	David E. Anderson
P361M6	WBS Management P.3.6 FY18 (May through Sep) (Anderson)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	David E. Anderson
P361M35	P.3.6.2 Integration Effort FY18 (May through Sep) (Solley)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	David E. Anderson
P361M42	P.3.6.3 Integration Effort FY18 (May through Sep) (Solley)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	David E. Anderson
P361M56	P.3.6.4 Integration Effort FY18 (May through Sep) (Solley)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	David E. Anderson
P361M71	CAM management P.3.6.5 FY18 (May through Sep) (Solley)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	David E. Anderson
P361M83	P.3.6.6 Integration Effort FY18 (May through Sep) (Solley)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	David E. Anderson
P361M102	P.3.6.7 Integration Effort FY18 (Aug - Sep) (Solley)	01-Aug-18 A	28-Sep-18 A	01-Aug-18	28-Sep-18	100%	0	$0	David E. Anderson
P361M11	WBS Management P.3.6 FY19 Anderson) (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	David E. Anderson
P361M37	P.3.6.2 Integration Effort FY19 (Solley) (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	David E. Anderson
P361M44	P.3.6.3 Integration Effort FY19 (Solley) (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	David E. Anderson
P361M58	P.3.6.4 Integration Effort FY19 (Solley) (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	David E. Anderson
P361M73	CAM management P.3.6.5 FY19 (Solley) (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	David E. Anderson
P361M85	P.3.6.6 Integration Effort FY19 (Solley) (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	David E. Anderson
P361M11B	WBS Management P.3.6 FY19 Anderson) (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	David E. Anderson
P361M11C	WBS Management P.3.6 FY19 Anderson) (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	David E. Anderson
P361M16	WBS Management P.3.6 FY20 (Anderson) (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	David E. Anderson
P361M16a	WBS Management P.3.6 FY20 (Anderson) (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	David E. Anderson
P361M21	WBS Management P.3.6 FY21 (Anderson) (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	David E. Anderson
P361M21a	WBS Management P.3.6 FY21 (Anderson) (LOE) Part 2 (Nov20 - Feb21)	02-Nov-20 A	01-Mar-21 A	02-Nov-20	26-Feb-21	100%	0	$22,498	David E. Anderson
P361M21b	WBS Management P.3.6 FY21 (Anderson) (LOE) Part 3 (Mar21 - Sep21)	01-Mar-21 A	30-Sep-21	01-Mar-21	30-Sep-21	42.67%	86	$31,062	David E. Anderson
P361M26	WBS Management P.3.6 FY22 (Anderson) (LOE)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$55,703	David E. Anderson
P361M003	P.3.5 and P.3.6 Organize and Verify Documentation for Phase 1 ARR	13-Sep-22	10-Oct-22	13-Sep-22	10-Oct-22	0%	20	$13,530	David E. Anderson
P361M31	WBS Management P.3.6 FY23 (Anderson) (LOE)	03-Oct-22	20-Dec-22	03-Oct-22	20-Dec-22	0%	55	$5,099	David E. Anderson
P361M002	P.3.5 and P.3.6 Organize and Verify Documentation for Phase 2 ARR	20-Jul-23	16-Aug-23	20-Jul-23	16-Aug-23	0%	20	$13,906	David E. Anderson
P361M001	P.3.5 and P.3.6 Organize and Verify Documentation for Phase 3 ARR	17-Apr-24	14-May-24	17-Apr-24	14-May-24	0%	20	$14,464	David E. Anderson
P.03.06.02 Transformer		23-May-19 A	15-Dec-21	23-May-19	15-Dec-21		138	$1,280,195	
P.03.06.02.02 Design - Transformer - (NEP36220)		23-May-19 A	30-May-19 A	23-May-19	30-May-19		0	$0	
P362D26	Review and modify current specification for transformer	23-May-19 A	30-May-19 A	23-May-19	30-May-19	100%	0	$0	David E. Anderson
P.03.06.02.03 Procure/Fab - Transformer and SCR (NEP36231)		02-Nov-20 A	15-Dec-21	02-Nov-20	15-Dec-21		138	$1,266,477	
P362P68	Prep for and hold Procurement Readiness Review for Two 2 1350kVA Transformers and two SCR Systems	02-Nov-20 A	04-Nov-20 A	02-Nov-20	13-Nov-20	100%	0	$4,972	David E. Anderson



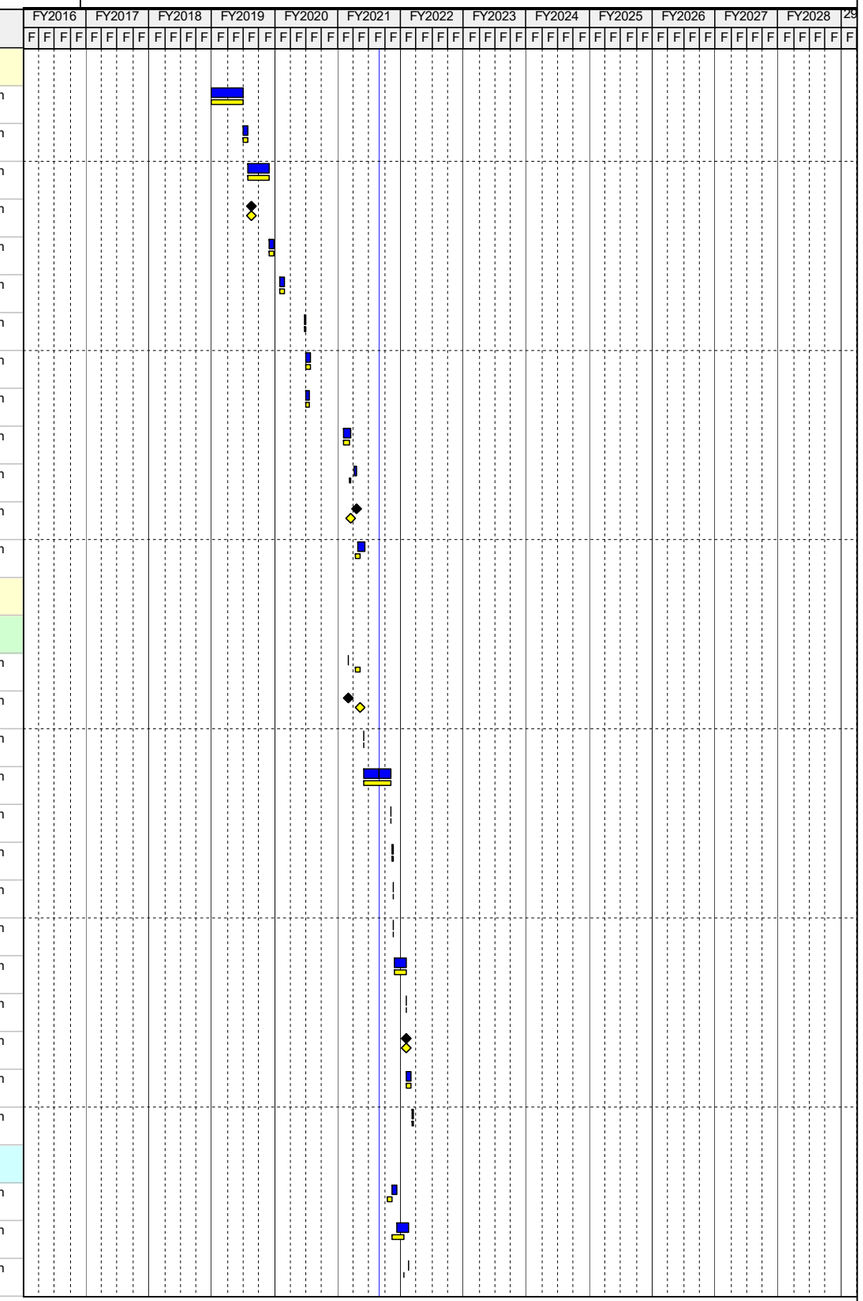
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P362P71	Process Sole Source Procurement of Two 1350kVA Transformers	16-Nov-20 A	18-Dec-20 A	16-Nov-20	12-Jan-21	100%	0	$6,647	David E. Anderson
P362P90	Award of Remaining Transformers and SCRs Complete (MS)		18-Dec-20 A		18-Dec-20	100%	0	$0	David E. Anderson
P362P80	Drawing Submittal and Approval Transformers and SCRs to MS 1	04-Jan-21 A	29-Jan-21 A	04-Jan-21	25-Feb-21	100%	0	$0	David E. Anderson
P362P63	MS 1 Satisfactory completion and TPO approval of Drawings	29-Jan-21 A	29-Jan-21 A	25-Feb-21	25-Feb-21	100%	0	$308,756	David E. Anderson
P362P70	Fabricate Transformers and SCRs to MS 2	01-Feb-21 A	09-Jul-21	26-Feb-21	03-Aug-21	75%	28	$0	David E. Anderson
P362P100	MS 2 Satisfactory completion of Factory Accepance Test and ship 1st article to AOPT.	09-Jul-21	09-Jul-21	03-Aug-21	03-Aug-21	0%	1	$359,317	David E. Anderson
P362P104	Shipment and Delivery Transformers and SCRs to Receive	12-Jul-21	23-Jul-21	04-Aug-21	17-Aug-21	0%	10	$0	David E. Anderson
P362P530	Shipment Period, 1st Unit to AOPT (NIB)	12-Jul-21	23-Jul-21			0%	10	$0	David E. Anderson
P362P120	Receive Two Remaining Transformers and SCRs (MS)		23-Jul-21		17-Aug-21	0%	0	$0	David E. Anderson
P362P114	Fabricate Transformers and SCRs to MS 3	26-Jul-21	27-Aug-21	18-Aug-21	15-Sep-21	0%	25	$0	David E. Anderson
P362P110	MS 3 Acceptance of all componenta and documentation	30-Aug-21	30-Aug-21	16-Sep-21	16-Sep-21	0%	1	$359,319	David E. Anderson
P.03.06.02.03.01	Additional SCR	17-May-21 A	15-Dec-21	01-Jun-21	15-Dec-21		138	$227,466	
P.03.06.02.03.01.01	SCR Unit	17-May-21 A	15-Dec-21	01-Jun-21	15-Dec-21		138	$222,255	
P362P300	Procure SCR Unit	17-May-21 A	27-May-21 A	01-Jun-21	14-Jun-21	100%	0	$1,226	David E. Anderson
P362P310	Fabricate SCR Unit	28-May-21 A	03-Dec-21	15-Jun-21	03-Dec-21	0%	130	$0	David E. Anderson
P362P320	Factory acceptance test witness (travel)	06-Dec-21	07-Dec-21	06-Dec-21	07-Dec-21	0%	2	$6,265	David E. Anderson
P362P330	Ship SCR Unit to Oak Ridge	08-Dec-21	10-Dec-21	08-Dec-21	10-Dec-21	0%	3	$3,210	David E. Anderson
P362P340	Receive SCR Unit	13-Dec-21	13-Dec-21	13-Dec-21	13-Dec-21	0%	1	$207,989	David E. Anderson
P362P350	In-house inspection and test	14-Dec-21	15-Dec-21	14-Dec-21	15-Dec-21	0%	2	$3,565	David E. Anderson
P.03.06.02.03.01.02	GFE	01-Jun-21	25-Aug-21	15-Jun-21	25-Aug-21		61	$5,212	
P362P400	Procure hard fire gate cards	01-Jun-21*	16-Jun-21	15-Jun-21	16-Jun-21	0%	12	$1,134	David E. Anderson
P362P430	Procure Fast over current PCB	17-Jun-21	17-Jun-21	17-Jun-21	17-Jun-21	0%	1	$229	David E. Anderson
P362P410	Fabricate hard fire gate cards	17-Jun-21	29-Jul-21	17-Jun-21	29-Jul-21	0%	30	$0	David E. Anderson
P362P460	Procure Fiber optic transmitter card	18-Jun-21	21-Jun-21	18-Jun-21	21-Jun-21	0%	2	$621	David E. Anderson
P362P440	Fabricate fast over current PCB	18-Jun-21	09-Jul-21	18-Jun-21	09-Jul-21	0%	15	$0	David E. Anderson
P362P490	Procure water manifold	22-Jun-21	06-Jul-21	22-Jun-21	06-Jul-21	0%	10	$949	David E. Anderson
P362P470	Fabricate fiber optic transmitter card	22-Jun-21	03-Aug-21	22-Jun-21	03-Aug-21	0%	30	$0	David E. Anderson
P362P500	Fabricate water manifold	07-Jul-21	17-Aug-21	07-Jul-21	17-Aug-21	0%	30	$0	David E. Anderson
P362P450	Receive fast over current PCB	12-Jul-21	12-Jul-21	12-Jul-21	12-Jul-21	0%	1	$104	David E. Anderson
P362P420	Receive hard fire gate cards	30-Jul-21	30-Jul-21	30-Jul-21	30-Jul-21	0%	1	$624	David E. Anderson
P362P480	Receive fiber optic transmitter card	04-Aug-21	04-Aug-21	04-Aug-21	04-Aug-21	0%	1	$312	David E. Anderson
P362P510	Receive water manifold	18-Aug-21	18-Aug-21	18-Aug-21	18-Aug-21	0%	1	$780	David E. Anderson
P362P520	Ship GFE to Dynapower to complete manufacturing	19-Aug-21	25-Aug-21	19-Aug-21	25-Aug-21	0%	5	$459	David E. Anderson



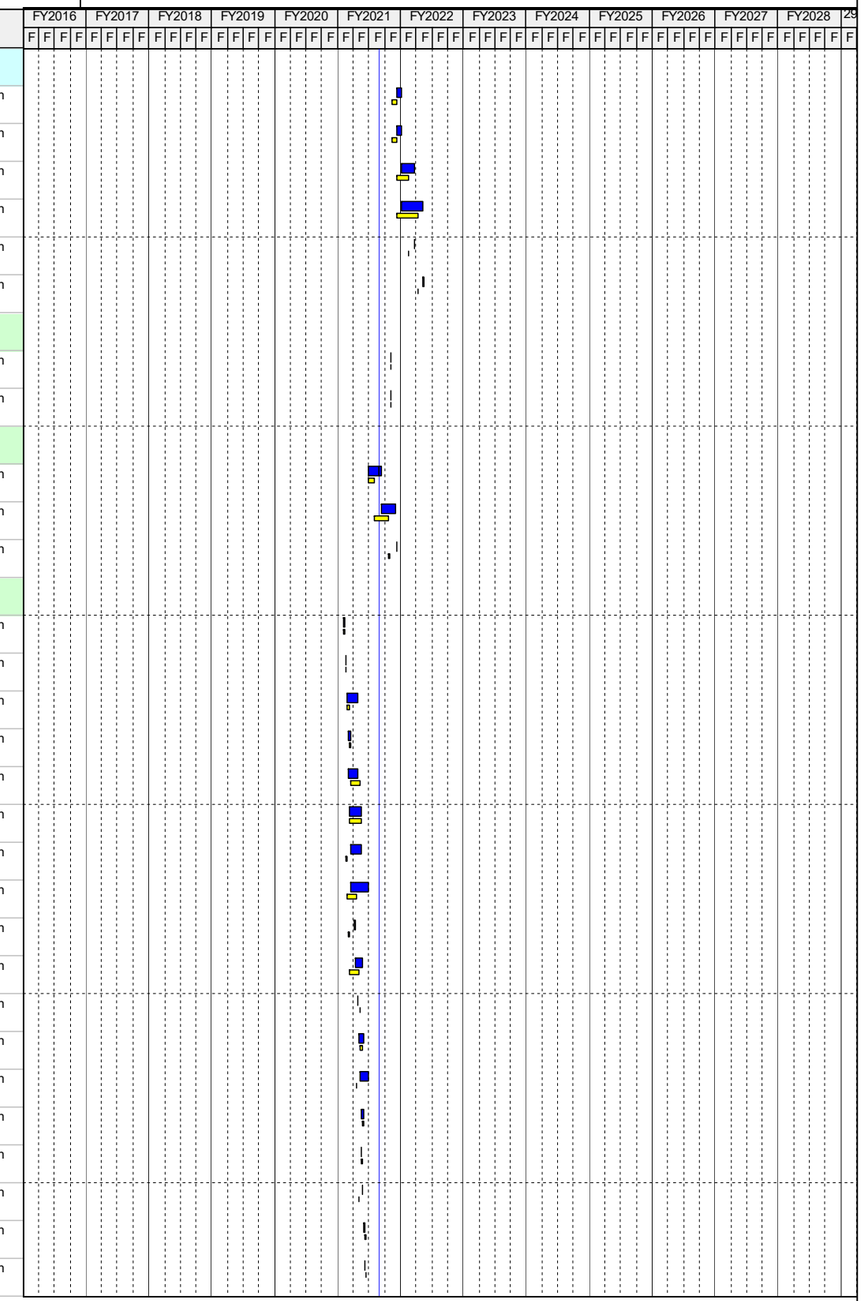
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P.03.06.02.04	Installation - Transformer	26-Jul-21	01-Dec-21	18-Aug-21	03-Dec-21		90	$13,719	
P.03.06.02.04.01	Phase 1 Installation	26-Jul-21	30-Jul-21	18-Aug-21	24-Aug-21		5	$4,529	
P362I66	Relocate and site transformer SCL-MOD-30	26-Jul-21	28-Jul-21	18-Aug-21	20-Aug-21	0%	3	$4,529	David E. Anderson
P362MS76	Transformer Ready for Integrated Testing SCL-MOD-30 (MS)		30-Jul-21		24-Aug-21	0%	0	$0	David E. Anderson
P.03.06.02.04.02	Phase 2 Installation	26-Jul-21	30-Jul-21	18-Aug-21	24-Aug-21		5	$4,529	
P362I67	Relocate and site transformer SCL-MOD-28	26-Jul-21	28-Jul-21	18-Aug-21	20-Aug-21	0%	3	$4,529	David E. Anderson
P362MS77	Transformer Ready for Integrated Testing SCL-MOD-28 (MS)		30-Jul-21		24-Aug-21	0%	0	$0	David E. Anderson
P.03.06.02.04.03	Phase 3 Installation	23-Nov-21	01-Dec-21	29-Nov-21	03-Dec-21		5	$4,661	
P362I68	Relocate and site transformer SCL-MOD-25	23-Nov-21	29-Nov-21	29-Nov-21	01-Dec-21	0%	3	$4,661	David E. Anderson
P362MS78	Transformer Ready for Integrated Testing SCL-MOD-25 (MS)		01-Dec-21		03-Dec-21	0%	0	$0	David E. Anderson
P.03.06.03	SCR System	01-Apr-19 A	06-Oct-22	01-Apr-19	06-Oct-22		278	$80,023	
P.03.06.03.02	Design - SCR System - (NEP36320)	01-Apr-19 A	13-Feb-20 A	01-Apr-19	13-Feb-20		0	$0	
P363D91	Generate utilities interface document for standard SCR system.	01-Apr-19 A	12-Apr-19 A	01-Apr-19	12-Apr-19	100%	0	$0	David E. Anderson
P363D364	Fab ORNL Supplied SCR PCBs	03-Feb-20 A	13-Feb-20 A	03-Feb-20	13-Feb-20	100%	0	$0	David E. Anderson
P.03.06.03.03	Procure/Fab- SCR System ((NEP36331)	16-Nov-20 A	18-Dec-20 A	16-Nov-20	12-Jan-21		0	$15,762	
P363P56	Process Sole Source Procurement of Two Standard SCR Systems	16-Nov-20 A	18-Dec-20 A	16-Nov-20	12-Jan-21	100%	0	$15,762	David E. Anderson
P.03.06.03.04	Installation - SCR System	24-Aug-21	06-Oct-22	25-Aug-21	06-Oct-22		278	$64,261	
P.03.06.03.04.01	Phase 1 Installation	24-Aug-21	24-Feb-22	25-Aug-21	10-Jan-22		122	$22,685	
P363I261	Install switch gear operator & E-stop and wire for SCL-MOD-30	24-Aug-21	26-Aug-21	25-Aug-21	27-Aug-21	0%	3	$9,999	David E. Anderson
P363I271	Check plumbing for water leaks for SCL-MOD-30 SCR	14-Feb-22	14-Feb-22	15-Dec-21	15-Dec-21	0%	1	$232	David E. Anderson
P363MS281	SCR Ready for Integrated Testing SCL-MOD-30 (MS)		18-Feb-22		05-Jan-22	0%	0	$0	David E. Anderson
P363I276	Energize SCR units to verify control functions for SCL-MOD-30	22-Feb-22	24-Feb-22	06-Jan-22	10-Jan-22	0%	3	$12,453	David E. Anderson
P.03.06.03.04.02	Phase 2 Installation	03-Jan-22	22-Jul-22	03-Jan-22	22-Jul-22		141	$20,597	
P363I201	Install switch gear operator & E-stop and wire for SCL-MOD-28	03-Jan-22	05-Jan-22	03-Jan-22	05-Jan-22	0%	3	$10,280	David E. Anderson
P363I211	Check plumbing for water leaks for SCL-MOD-28 SCR	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	0%	1	$232	David E. Anderson
P363MS282	SCR Ready for Integrated Testing SCL-MOD-28 (MS)		19-Jul-22		19-Jul-22	0%	0	$0	David E. Anderson
P363I216	Energize SCR units to verify control functions for SCL-MOD-28	20-Jul-22	22-Jul-22	20-Jul-22	22-Jul-22	0%	3	$10,084	David E. Anderson
P.03.06.03.04.03	Phase 3 Installation	09-Mar-22	06-Oct-22	26-Jan-22	06-Oct-22		148	$20,979	
P363I141	Install switch gear operator & E-stop and wire for SCL-MOD-25	09-Mar-22	11-Mar-22	26-Jan-22	28-Jan-22	0%	3	$10,280	David E. Anderson
P363I151	Check plumbing for water leaks for SCL-MOD-25 SCR	16-Mar-22	16-Mar-22	02-Feb-22	02-Feb-22	0%	1	$232	David E. Anderson
P363MS283	SCR Ready for Integrated Testing SCL-MOD-25 (MS)		21-Sep-22		21-Sep-22	0%	0	$0	David E. Anderson
P363I156	Energize SCR units to verify control functions for SCL-MOD-25	04-Oct-22	06-Oct-22	04-Oct-22	06-Oct-22	0%	3	$10,467	David E. Anderson
P.03.06.04	Modulator System	01-Oct-18 A	04-Oct-22	01-Oct-18	04-Oct-22		335	$1,499,280	



Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P.03.06.04.02	Design - Modulator System - (NEP36420)	01-Oct-18 A	10-Mar-21 A	01-Oct-18	08-Feb-21		0	$43,090	
P364D24	Update AT-HVCM prototype drawings to production quality drawings	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	David E. Anderson
P364D24B	Update AT-HVCM prototype drawings to production quality drawings - Continued	01-Apr-19 A	30-Apr-19 A	01-Apr-19	30-Apr-19	100%	0	$0	David E. Anderson
P364D26	Update drawings of unique AT-HVCM components to reflect recent as-builts.	01-May-19 A	30-Aug-19 A	01-May-19	30-Aug-19	100%	0	$0	David E. Anderson
OPS012	AT-HVCM Test Article Testing Complete (MS)		20-May-19 A		20-May-19	100%	0	$0	David E. Anderson
P364D26b	Update drawings of unique AT-HVCM components to reflect recent as-builts. - Continued	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	David E. Anderson
P364D406	Update AT-HVCM System Model for Oil Cooling Systems	01-Nov-19 A	27-Nov-19 A	01-Nov-19	27-Nov-19	100%	0	$0	David E. Anderson
P364D408	Update AT-HVCM model with Renner pump design	23-Mar-20 A	31-Mar-20 A	23-Mar-20	31-Mar-20	100%	0	$0	David E. Anderson
P364D418	Review cable database and update drawings to reflect changes	01-Apr-20 A	29-Apr-20 A	01-Apr-20	29-Apr-20	100%	0	$0	David E. Anderson
P364D408a	Update AT-HVCM model with Renner pump design (Apr20>)	01-Apr-20 A	17-Apr-20 A	01-Apr-20	17-Apr-20	100%	0	$0	David E. Anderson
P364D428	Investigate transformer band heating issue and solution	04-Nov-20 A	15-Dec-20 A	04-Nov-20	07-Dec-20	100%	0	$10,359	David E. Anderson
P364D438	Modify transformer drawings	04-Jan-21 A	20-Jan-21 A	08-Dec-20	14-Dec-20	100%	0	$2,595	David E. Anderson
P364D448	Modify transformer drawings Due 3 months prior to Main Tank Assembly (MS)		20-Jan-21 A		14-Dec-20	100%	0	$0	David E. Anderson
P364D111	Incorporate upgraded cooling system design into AT-HVCM Creo model. Create updated assembly drawings	27-Jan-21 A	10-Mar-21 A	11-Jan-21	08-Feb-21	100%	0	$30,137	David E. Anderson
P.03.06.04.03	Procure/Fab - Modulator System ((NEP36431)	02-Nov-20 A	11-Feb-22	02-Nov-20	13-Jan-22		172	$1,128,419	
P.03.06.04.03.01	AT-HVCM Spare	01-Dec-20 A	11-Feb-22	13-Jan-21	13-Jan-22		172	$803,992	
P364P56	Process Procurement and Award (Exercise Option) Fabrication of the Spare AT-HVCM build to print modulator	01-Dec-20 A	04-Dec-20 A	13-Jan-21	10-Feb-21	100%	0	$3,013	David E. Anderson
P364P366	Award (Exercise Option) of Spare AT-HVCM build to print modulator Complete (MS)		04-Dec-20 A		10-Feb-21	100%	0	$0	David E. Anderson
P364P742	MS1 - Delivery of detailed fabrication schedule	01-Mar-21 A	01-Mar-21 A	01-Mar-21	01-Mar-21	100%	0	$73,868	David E. Anderson
P364P57	AT-HVCM Spare Parts Fabrication Period 1	02-Mar-21 A	06-Aug-21	02-Mar-21	06-Aug-21	10%	48	$0	David E. Anderson
P364P748	MS4 - IGBT board assemblies including full peak power testing on single phase test stand and documentation	09-Aug-21	09-Aug-21	09-Aug-21	09-Aug-21	0%	1	$88,642	David E. Anderson
P364P59	AT-HVCM Spare Parts Fabrication Period 2	10-Aug-21	20-Aug-21	10-Aug-21	20-Aug-21	0%	9	$0	David E. Anderson
P364P744	MS2 - Receipt of 50% of purchased and/or fabricated	23-Aug-21	23-Aug-21	23-Aug-21	23-Aug-21	0%	1	$221,606	David E. Anderson
P364P746	MS3 - Successful completion of energy storage cap racks assembly, water panel, oil tank asseblies	23-Aug-21	23-Aug-21	23-Aug-21	23-Aug-21	0%	1	$59,096	David E. Anderson
P364P61	AT-HVCM Spare Parts Fabrication Period 3	24-Aug-21	03-Nov-21	24-Aug-21	03-Nov-21	0%	51	$0	David E. Anderson
P364P750	MS5 - Successful completion of tank basket assembly including FAT	04-Nov-21	04-Nov-21	04-Nov-21	04-Nov-21	0%	1	$147,737	David E. Anderson
P364P291	Fabrication of spare AT-HVCM Optional Parts Complete (MS)		04-Nov-21		04-Nov-21	0%	0	$0	David E. Anderson
P364P63	AT-HVCM Spare Parts Fabrication Period 4	05-Nov-21	03-Dec-21	05-Nov-21	03-Dec-21	0%	19	$0	David E. Anderson
P364P790	MS6 - Receipt and acceptance of spare assemblies at ORNL	06-Dec-21	13-Dec-21	06-Dec-21	13-Dec-21	0%	6	$147,737	David E. Anderson
P.03.06.04.03.01.01	Spare AT-HVCM rectifier assemblies	12-Aug-21	19-Nov-21	15-Jul-21	22-Oct-21		71	$34,726	
P364P1110	Procure Spare PCBs for Rectifier Assemblies (3 sets)	12-Aug-21	09-Sep-21	15-Jul-21	11-Aug-21	0%	20	$462	David E. Anderson
P364P1120	Fabricate Spare PCBs for Rectifier Assemblies (3 sets)	10-Sep-21	18-Nov-21	12-Aug-21	21-Oct-21	0%	50	$0	David E. Anderson
P364P1130	Receive Spare PCBs for Rectifier Assemblies (3 sets)	19-Nov-21	19-Nov-21	22-Oct-21	22-Oct-21	0%	1	$34,265	David E. Anderson

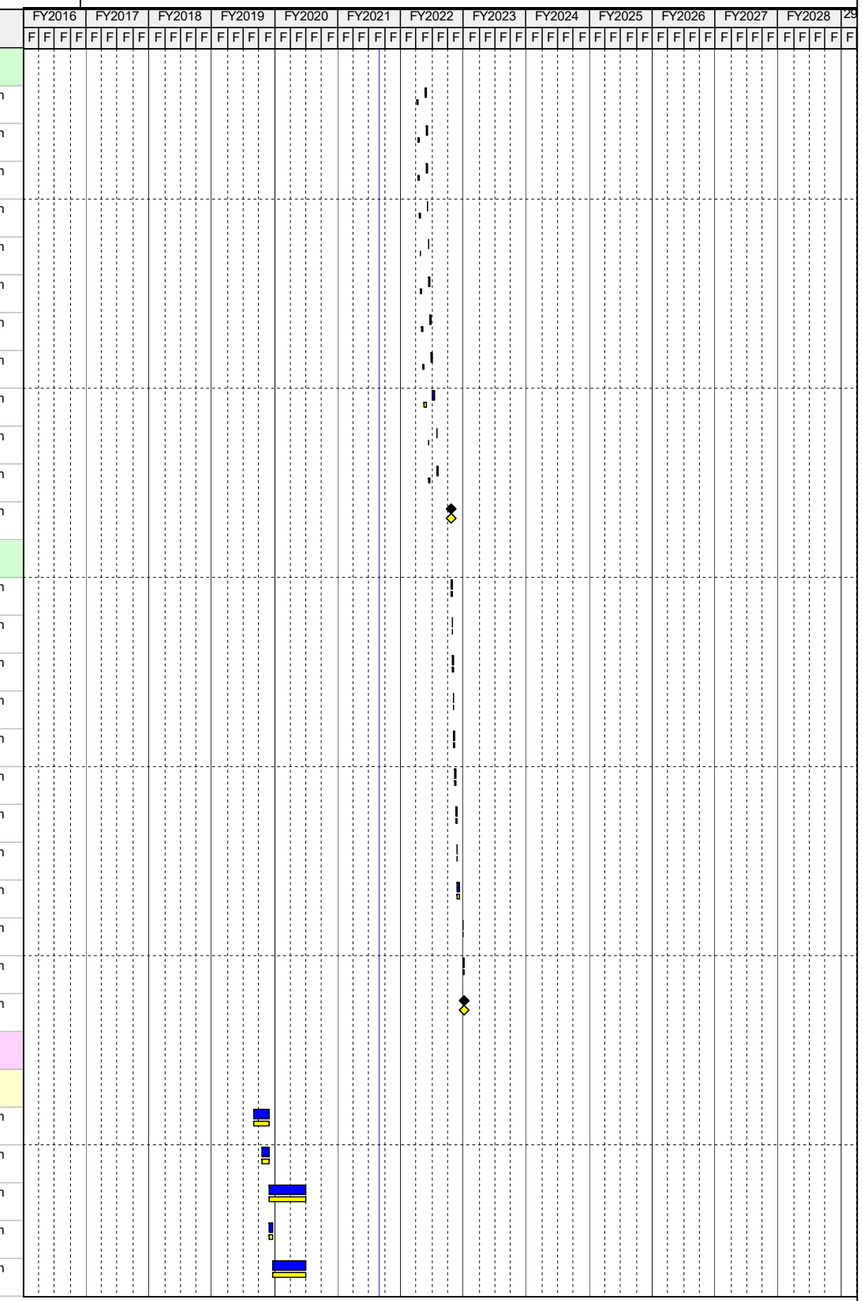


Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P.03.06.04.03.01.02	Spare AT-HVCM resonant capacitor assemblies	10-Sep-21	11-Feb-22	12-Aug-21	13-Jan-22		101	$27,566	
P364P1140	Procure Spare Freewheeling Diode PCBs for Resonant Capacitor Assemblies (3 sets)	10-Sep-21	07-Oct-21	12-Aug-21	09-Sep-21	0%	20	$467	David E. Anderson
P364P1170	Procure Spare Resonant capacitors	10-Sep-21	07-Oct-21	12-Aug-21	09-Sep-21	0%	20	$467	David E. Anderson
P364P1150	Fabricate Spare Freewheeling Diode PCBs for Resonant Capacitor Assemblies (3 sets)	08-Oct-21	20-Dec-21	10-Sep-21	18-Nov-21	0%	50	$0	David E. Anderson
P364P1180	Fabricate Spare Resonant capacitors	08-Oct-21	10-Feb-22	10-Sep-21	12-Jan-22	0%	80	$0	David E. Anderson
P364P1160	Receive Spare Freewheeling Diode PCBs for Resonant Capacitor Assemblies (3 sets)	21-Dec-21	21-Dec-21	19-Nov-21	19-Nov-21	0%	1	$7,977	David E. Anderson
P364P1190	Receive Spare Resonant capacitors	11-Feb-22	11-Feb-22	13-Jan-22	13-Jan-22	0%	1	$18,656	David E. Anderson
P.03.06.04.03.03	Modulator Oil	04-Aug-21	04-Aug-21	04-Aug-21	04-Aug-21		1	$80,084	
P364P131	Receive oil for modulator SCL-MOD-28 and 25	04-Aug-21	04-Aug-21	04-Aug-21	04-Aug-21	0%	1	$53,046	David E. Anderson
P364P810	Receive oil for modulator spare	04-Aug-21	04-Aug-21	04-Aug-21	04-Aug-21	0%	1	$27,038	David E. Anderson
P.03.06.04.03.04	CO2 System	01-Apr-21 A	07-Sep-21	01-Apr-21	27-Jul-21		69	$45,740	
P364P31	Procure CO2 systems	01-Apr-21 A	10-Jun-21	01-Apr-21	29-Apr-21	95%	8	$4,746	David E. Anderson
P364P35	Fabricate CO2 systems	11-Jun-21	03-Sep-21	30-Apr-21	26-Jul-21	0%	60	$0	David E. Anderson
P364P690	Receive CO2 systems	07-Sep-21	07-Sep-21	27-Jul-21	27-Jul-21	0%	1	$40,994	David E. Anderson
P.03.06.04.03.05	Oil Cooling System	02-Nov-20 A	22-Nov-21	02-Nov-20	24-Nov-21		123	$128,131	
P364P502	Preparation for hybrid cooling system design	02-Nov-20 A	13-Nov-20 A	02-Nov-20	13-Nov-20	100%	0	$8,287	David E. Anderson
P364P506	Change Control Board Review of the AT-HVCM Oil Cooling Systems	16-Nov-20 A	19-Nov-20 A	16-Nov-20	19-Nov-20	100%	0	$3,547	David E. Anderson
P364P527	Procure oil circulation system fabricated hardware	24-Nov-20 A	28-Jan-21 A	24-Nov-20	09-Dec-20	100%	0	$4,476	David E. Anderson
P364P569	Procure cable assemblies	01-Dec-20 A	18-Dec-20 A	08-Dec-20	14-Dec-20	100%	0	$116	David E. Anderson
P364P576	Fab cable assemblies	01-Dec-20 A	28-Jan-21 A	15-Dec-20	09-Feb-21	100%	0	$0	David E. Anderson
P364P534	Fab oil circ fab hardware	09-Dec-20 A	17-Feb-21 A	10-Dec-20	18-Feb-21	100%	0	$0	David E. Anderson
P364P508	Procure oil circulation COTS equipment	15-Dec-20 A	15-Feb-21 A	20-Nov-20	23-Nov-20	100%	0	$3,597	David E. Anderson
P364P513	Fab oil circulation COTS equipment	17-Dec-20 A	26-Mar-21 A	24-Nov-20	21-Jan-21	100%	0	$0	David E. Anderson
P364P548	Procure oil circulation system control PCB	07-Jan-21 A	13-Jan-21 A	01-Dec-20	07-Dec-20	100%	0	$1,773	David E. Anderson
P364P555	Fab oil circulation system control PCB	14-Jan-21 A	22-Feb-21 A	08-Dec-20	02-Feb-21	100%	0	$0	David E. Anderson
P364P583	Receive cable assemblies	29-Jan-21 A	29-Jan-21 A	10-Feb-21	10-Feb-21	100%	0	$13,241	David E. Anderson
P364P590	In-House Fabrication of Custom Cable Assemblies	01-Feb-21 A	26-Feb-21 A	11-Feb-21	24-Feb-21	100%	0	$9,071	David E. Anderson
P364P520	Receive oil circulation COTS equipment	08-Feb-21 A	26-Mar-21 A	22-Jan-21	22-Jan-21	100%	0	$24,707	David E. Anderson
P364P597	Assemble VFD Enclosures (3X)	16-Feb-21 A	26-Feb-21 A	22-Feb-21	04-Mar-21	100%	0	$8,164	David E. Anderson
P364P541	Receive oil circ fab hardware	17-Feb-21 A	17-Feb-21 A	19-Feb-21	19-Feb-21	100%	0	$15,756	David E. Anderson
P364P562	Receive oil circulation system control PCB	22-Feb-21 A	22-Feb-21 A	03-Feb-21	03-Feb-21	100%	0	$3,401	David E. Anderson
P364P604	Assemble Control Panels (3X)	01-Mar-21 A	08-Mar-21 A	05-Mar-21	12-Mar-21	100%	0	$5,443	David E. Anderson
P364P618	Assemble remaining	09-Mar-21 A	11-Mar-21 A	15-Mar-21	17-Mar-21	100%	0	$2,721	David E. Anderson

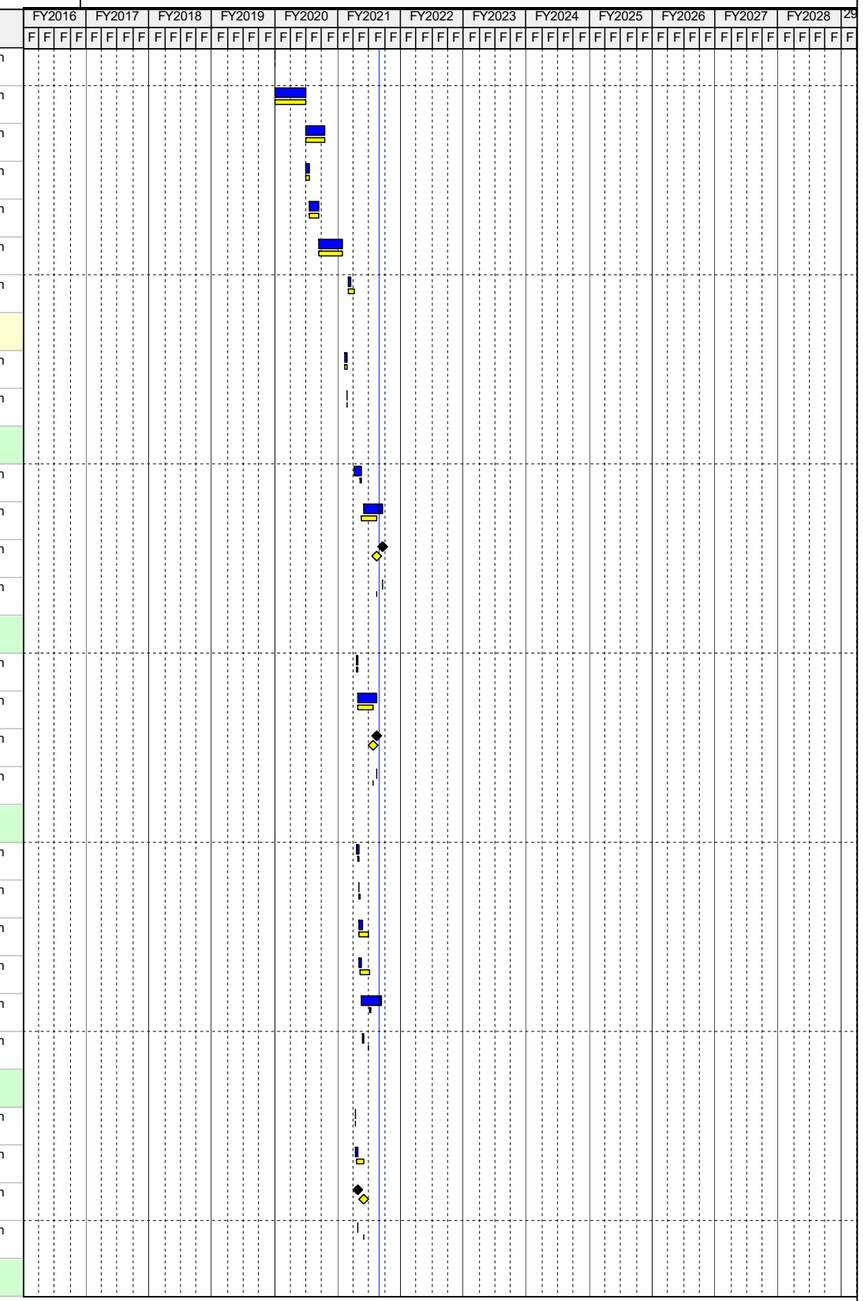


Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P364P625	Assemble production oil pump assemblies	05-Apr-21 A	20-Jul-21	18-Mar-21	29-Mar-21	90%	35	$6,803	David E. Anderson
P364P611	Assemble test article oil pump assembly	27-Apr-21 A	20-Jul-21	22-Feb-21	24-Feb-21	90%	35	$2,268	David E. Anderson
P364P614	Prepare test pump skid for shipment to modulator vendor	21-Jul-21	27-Jul-21	25-Feb-21	03-Mar-21	0%	5	$11,167	David E. Anderson
P364P632	Ship cooling system to AOPT	28-Jul-21	03-Aug-21	18-Mar-21	24-Mar-21	0%	5	$917	David E. Anderson
P364P311	Return cooling system and spts tank to ORNL	16-Nov-21	22-Nov-21	18-Nov-21	24-Nov-21	0%	5	$2,675	David E. Anderson
P.03.06.04.03.06	Temperature Monitoring	01-Jun-21	13-Aug-21	01-Jun-21	13-Aug-21		53	$70,471	
P.03.06.04.03.06.02	Procurement Temperature Monitoring	01-Jun-21	13-Aug-21	01-Jun-21	13-Aug-21		53	$70,471	
P364P1220	Procure fabricated hardware	01-Jun-21*	14-Jun-21	01-Jun-21	14-Jun-21	0%	10	$2,724	David E. Anderson
P364P1230	Procure control PCB	15-Jun-21	21-Jun-21	15-Jun-21	21-Jun-21	0%	5	$1,163	David E. Anderson
P364P1222	Fab fabricated hardware	15-Jun-21	27-Jul-21	15-Jun-21	27-Jul-21	0%	30	$0	David E. Anderson
P364P1240	Procure COTS equipment	22-Jun-21	23-Jun-21	22-Jun-21	23-Jun-21	0%	2	$2,724	David E. Anderson
P364P1232	Fab control PCB	22-Jun-21	20-Jul-21	22-Jun-21	20-Jul-21	0%	20	$0	David E. Anderson
P364P1242	Fab COTS Equipment	24-Jun-21	15-Jul-21	24-Jun-21	15-Jul-21	0%	15	$0	David E. Anderson
P364P1244	Receive COTS equipment	16-Jul-21	19-Jul-21	16-Jul-21	19-Jul-21	0%	2	$26,989	David E. Anderson
P364P1250	In-House Fabrication of Custom Cable Assemblies	20-Jul-21	02-Aug-21	20-Jul-21	02-Aug-21	0%	10	$10,721	David E. Anderson
P364P1234	Receive control PCB	21-Jul-21	22-Jul-21	21-Jul-21	22-Jul-21	0%	2	$3,401	David E. Anderson
P364P1224	Receive fabricated hardware	28-Jul-21	29-Jul-21	28-Jul-21	29-Jul-21	0%	2	$14,586	David E. Anderson
P364P1270	Assemble Control Panels (3X)	03-Aug-21	10-Aug-21	03-Aug-21	10-Aug-21	0%	6	$5,443	David E. Anderson
P364P1280	Assemble remaining (3X)	11-Aug-21	13-Aug-21	11-Aug-21	13-Aug-21	0%	3	$2,721	David E. Anderson
P.03.06.04.04	Installation - Modulator System	16-Sep-21	04-Oct-22	18-Aug-21	04-Oct-22		260	$327,771	
P.03.06.04.04.01	Phase 1 Installation	16-Sep-21	22-Feb-22	18-Aug-21	05-Jan-22		104	$125,795	
P364I201	Install AT-HVCM Safety enclosure, interface wiring and ground plane for SCL-MOD-30	16-Sep-21	23-Sep-21	18-Aug-21	25-Aug-21	0%	6	$30,326	David E. Anderson
P364I211	Install CO2 System SCL-MOD-30	24-Sep-21	27-Sep-21	26-Aug-21	27-Aug-21	0%	2	$5,462	David E. Anderson
P364I222	Install Laminate Bus Alignment System and Supports SCL-MOD-30 (included in Mod build to print order)	24-Sep-21	30-Sep-21	26-Aug-21	01-Sep-21	0%	5	$20,743	David E. Anderson
P364I231	Install capacitor racks (anchor, ground, term cables, etc) for SCL-MOD-30	01-Oct-21	04-Oct-21	02-Sep-21	03-Sep-21	0%	2	$5,383	David E. Anderson
P364I241	Install laminate buswork for SCL-MOD-30	05-Oct-21	07-Oct-21	07-Sep-21	09-Sep-21	0%	3	$8,075	David E. Anderson
P364I242	Install cooling system on tank baskets SCL-Mod30	08-Oct-21	14-Oct-21	10-Sep-21	16-Sep-21	0%	5	$9,294	David E. Anderson
P364I243	Wire cooling system, route in-tank cables SCL-Mod30	15-Oct-21	21-Oct-21	17-Sep-21	23-Sep-21	0%	5	$12,149	David E. Anderson
P364P1330	Test cooling system and electronics SCL-Mod30	22-Oct-21	25-Oct-21	24-Sep-21	27-Sep-21	0%	2	$2,822	David E. Anderson
P364I216	Install AT-HVCM tank, water panel, interlocks, switchplates, and plumbing for SCL-MOD-30	26-Oct-21	08-Nov-21	28-Sep-21	11-Oct-21	0%	10	$26,119	David E. Anderson
P364I226	Check plumbing for water leaks for SCL-MOD-30 HVCM	14-Feb-22	14-Feb-22	15-Dec-21	15-Dec-21	0%	1	$232	David E. Anderson
P364I221	Connect all remaining power/controller/fiber cable for SCL-MOD-30	15-Feb-22	21-Feb-22	16-Dec-21	22-Dec-21	0%	5	$5,190	David E. Anderson
P364MS221	Modulator Ready for Integrated Testing SCL-MOD-30 (MS)		22-Feb-22		05-Jan-22	0%	0	$0	David E. Anderson

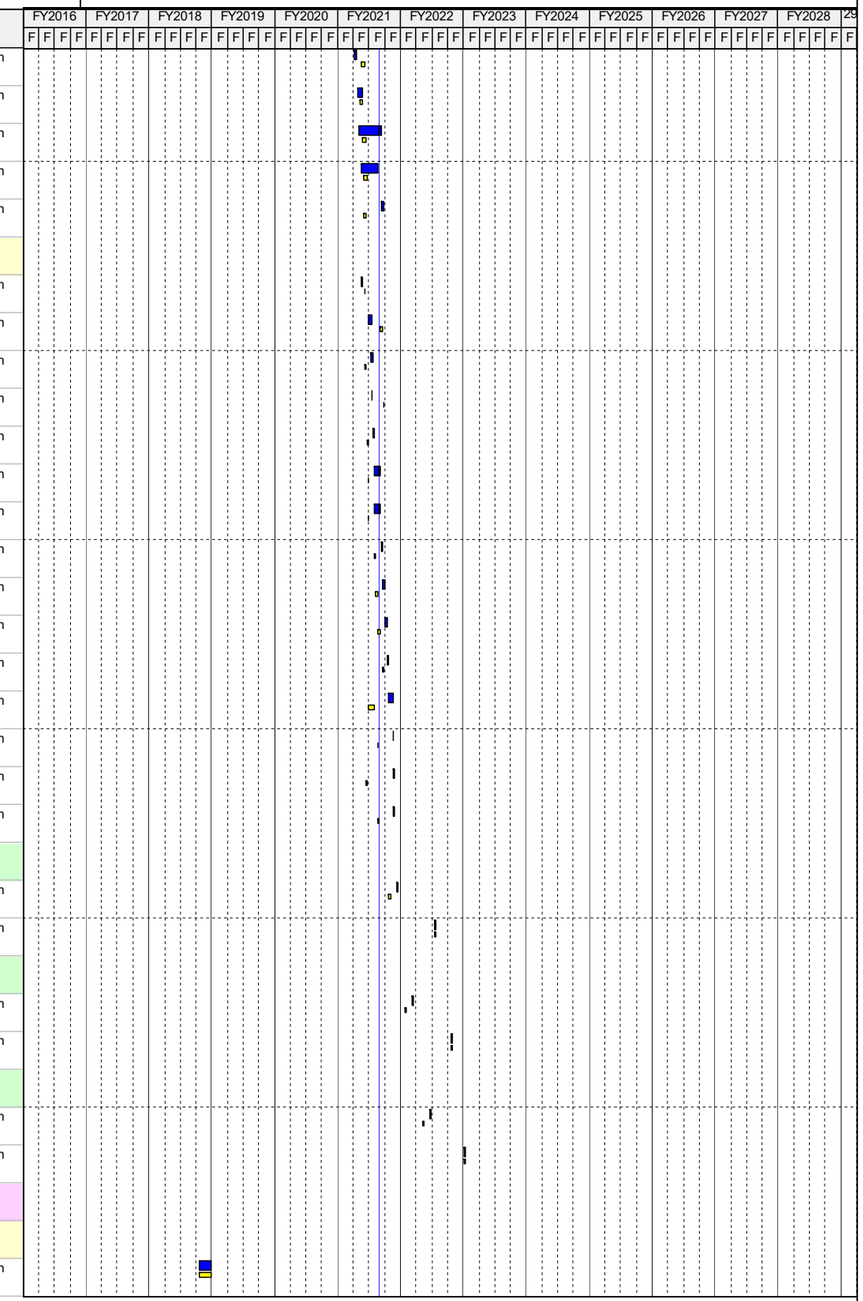
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P.03.06.04.04.02	Phase 2 Installation	23-Feb-22	19-Jul-22	06-Jan-22	19-Jul-22		102	$102,283	
P364I141	Install AT-HVCM Safety enclosure, interface wiring and ground plane for SCL-MOD-28	23-Feb-22	02-Mar-22	06-Jan-22	13-Jan-22	0%	6	$27,672	David E. Anderson
P364I214	Install CO2 System SCL-MOD-28	03-Mar-22	04-Mar-22	14-Jan-22	18-Jan-22	0%	2	$4,568	David E. Anderson
P364I224	Install Laminate Bus Alignment System and Supports SCL-MOD-28 (included in Mod build to print order)	03-Mar-22	08-Mar-22	14-Jan-22	20-Jan-22	0%	4	$14,610	David E. Anderson
P364I171	Install capacitor racks (anchor, ground, term cables, etc) for SCL-MOD-28	09-Mar-22	10-Mar-22	21-Jan-22	24-Jan-22	0%	2	$4,669	David E. Anderson
P364I181	Install laminate buswork for SCL-MOD-28	11-Mar-22	15-Mar-22	25-Jan-22	27-Jan-22	0%	3	$7,004	David E. Anderson
P364I182	Install cooling system on tank baskets SCL-Mod28	16-Mar-22	22-Mar-22	28-Jan-22	03-Feb-22	0%	5	$9,294	David E. Anderson
P364I183	Wire cooling system, route in-tank cables SCL-Mod28	23-Mar-22	29-Mar-22	04-Feb-22	10-Feb-22	0%	5	$12,149	David E. Anderson
P364P1333	Test cooling system and electronics SCL-Mod28	30-Mar-22	31-Mar-22	11-Feb-22	14-Feb-22	0%	2	$2,822	David E. Anderson
P364I151	Install AT-HVCM tank, water panel, interlocks, switchplates, and plumbing for SCL-MOD-28	01-Apr-22	14-Apr-22	15-Feb-22	28-Feb-22	0%	10	$15,500	David E. Anderson
P364I166	Check plumbing for water leaks for SCL-MOD-28 HVCM	02-May-22	02-May-22	15-Mar-22	15-Mar-22	0%	1	$232	David E. Anderson
P364I161	Connect all remaining power/controller/fiber cable for SCL-MOD-28	03-May-22	09-May-22	16-Mar-22	22-Mar-22	0%	5	$3,763	David E. Anderson
P364MS223	Modulator Ready for Integrated Testing SCL-MOD-28 (MS)		19-Jul-22		19-Jul-22	0%	0	$0	David E. Anderson
P.03.06.04.04.03	Phase 3 Installation	20-Jul-22	04-Oct-22	20-Jul-22	04-Oct-22		54	$99,694	
P364I76	Install AT-HVCM Safety enclosure, interface wiring and ground plane for SCL-MOD-25	20-Jul-22	27-Jul-22	20-Jul-22	27-Jul-22	0%	6	$27,672	David E. Anderson
P364I217	Install CO2 System SCL-MOD-25	28-Jul-22	29-Jul-22	28-Jul-22	29-Jul-22	0%	2	$4,568	David E. Anderson
P364I227	Install Laminate Bus Alignment System and Supports SCL-MOD-25 (included in Mod build to print order)	28-Jul-22	02-Aug-22	28-Jul-22	02-Aug-22	0%	4	$11,997	David E. Anderson
P364I111	Install capacitor racks (anchor, ground, term cables, etc) for SCL-MOD-25	03-Aug-22	04-Aug-22	03-Aug-22	04-Aug-22	0%	2	$4,669	David E. Anderson
P364I121	Install laminate buswork for SCL-MOD-25	05-Aug-22	09-Aug-22	05-Aug-22	09-Aug-22	0%	3	$7,004	David E. Anderson
P364I122	Install cooling system on tank baskets SCL-Mod25	10-Aug-22	16-Aug-22	10-Aug-22	16-Aug-22	0%	5	$9,294	David E. Anderson
P364I123	Wire cooling system, route in-tank cables SCL-Mod25	17-Aug-22	23-Aug-22	17-Aug-22	23-Aug-22	0%	5	$12,149	David E. Anderson
P364P1336	Test cooling system and electronics SCL-Mod25	24-Aug-22	25-Aug-22	24-Aug-22	25-Aug-22	0%	2	$2,822	David E. Anderson
P364I86	Install AT-HVCM tank, water panel, interlocks, switchplates, and plumbing for SCL-MOD-25	26-Aug-22	09-Sep-22	26-Aug-22	09-Sep-22	0%	10	$15,500	David E. Anderson
P364I106	Check plumbing for water leaks for SCL-MOD-25 HVCM	26-Sep-22	26-Sep-22	26-Sep-22	26-Sep-22	0%	1	$232	David E. Anderson
P364I96	Connect all remaining power/controller/fiber cable for SCL-MOD-25	27-Sep-22	03-Oct-22	27-Sep-22	03-Oct-22	0%	5	$3,786	David E. Anderson
P364MS225	Modulator Ready for Integrated Testing SCL-MOD-25 (MS)		04-Oct-22		04-Oct-22	0%	0	$0	David E. Anderson
P.03.06.05	Modulator Control System	03-Jun-19 A	11-Oct-22	03-Jun-19	11-Oct-22		340	$636,494	
P.03.06.05.02	Design - Modulator Control System - (NEP36520)	03-Jun-19 A	18-Dec-20 A	03-Jun-19	08-Jan-21		0	$11,595	
P365D36	Review current BOM and drawings, correct as necessary	03-Jun-19 A	30-Aug-19 A	03-Jun-19	30-Aug-19	100%	0	$0	David E. Anderson
P365D56	Learn KiCAD	19-Jul-19 A	30-Aug-19 A	19-Jul-19	30-Aug-19	100%	0	$0	David E. Anderson
P365D36b	Review current BOM and drawings, correct as necessary - Continued	03-Sep-19 A	31-Mar-20 A	03-Sep-19	31-Mar-20	100%	0	$0	David E. Anderson
P365D56b	Learn KiCAD - Continued	03-Sep-19 A	20-Sep-19 A	03-Sep-19	20-Sep-19	100%	0	$0	David E. Anderson
P365D76	Design and Prototype New Aux I/O Module	17-Sep-19 A	31-Mar-20 A	17-Sep-19	31-Mar-20	100%	0	$0	David E. Anderson



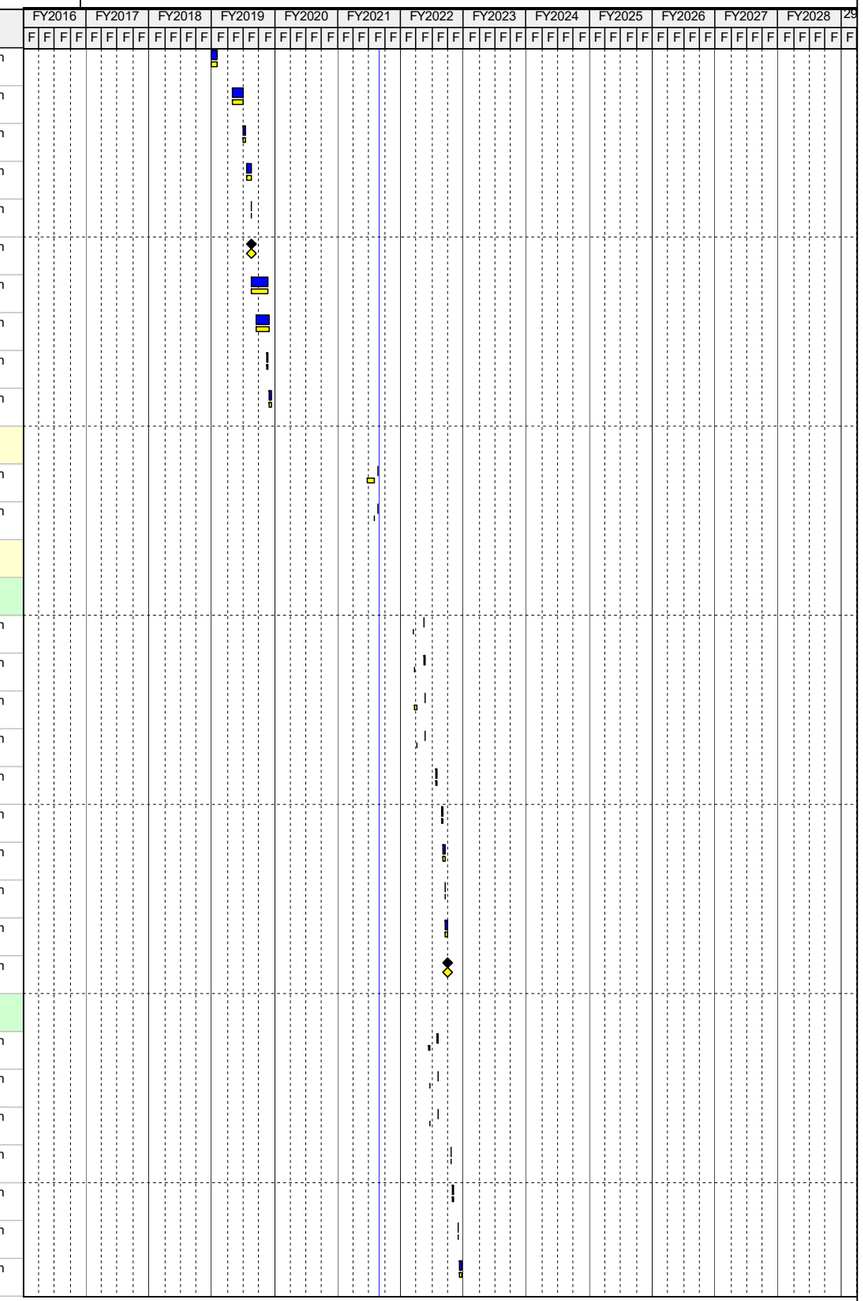
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P365I146	Provide HVCM Control Rack Specs (like RFAX-Mod1) to Barnett	01-Oct-19 A	02-Oct-19 A	01-Oct-19	02-Oct-19	100%	0	$0	David E. Anderson
P365D66	Design and Prototype new digital module	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	David E. Anderson
P365D36c	Review current BOM and drawings, correct as necessary (Apr20>)	01-Apr-20 A	15-Jul-20 A	01-Apr-20	15-Jul-20	100%	0	$0	David E. Anderson
P365D66a	Design and Prototype new digital module (Apr20>)	01-Apr-20 A	20-Apr-20 A	01-Apr-20	20-Apr-20	100%	0	$0	David E. Anderson
P365D76a	Design and Prototype New Aux I/O Module (Apr20>)	21-Apr-20 A	11-Jun-20 A	21-Apr-20	11-Jun-20	100%	0	$0	David E. Anderson
P365D86	Modify Program	12-Jun-20 A	30-Oct-20 A	12-Jun-20	30-Oct-20	100%	0	$0	David E. Anderson
P365D46	DCN for 3 modulator installations	30-Nov-20 A	18-Dec-20 A	30-Nov-20	08-Jan-21	100%	0	$11,595	David E. Anderson
P.03.06.05.03	Procure/Fab - Modulator Control System - (NEP36530)	11-Nov-20 A	29-Jun-21	11-Nov-20	17-May-21		21	$464,934	
P365P410	Prep for Procurement Readiness Review (PRR) for Modulator Controls	11-Nov-20 A	24-Nov-20 A	11-Nov-20	24-Nov-20	100%	0	$7,761	David E. Anderson
P365P420	Procurement Readiness Review for Modulator Controls	25-Nov-20 A	25-Nov-20 A	25-Nov-20	25-Nov-20	100%	0	$995	David E. Anderson
P.03.06.05.03.01	PPIC and Power Distribution chassis	05-Jan-21 A	21-Jun-21	11-Feb-21	17-May-21		15	$41,611	
P365P320	Procure PPIC and Power Distribution chassis	05-Jan-21 A	18-Feb-21 A	11-Feb-21	18-Feb-21	100%	0	$9,027	David E. Anderson
P365P330	Fabricate PPIC and Power Distribution chassis	01-Mar-21 A	18-Jun-21	19-Feb-21	14-May-21	80%	14	$0	David E. Anderson
P365P340	Fabrication of PPIC and Power Distribution chassis Complete (MS)		18-Jun-21		14-May-21	0%	0	$0	David E. Anderson
P365P332	Receive PPIC and Power Distribution chassis	21-Jun-21	21-Jun-21	17-May-21	17-May-21	0%	1	$32,584	David E. Anderson
P.03.06.05.03.02	Fabricate PS and Aux I/O chassis	19-Jan-21 A	17-May-21 A	19-Jan-21	23-Apr-21		0	$25,490	
P365P357	Procure PS and Aux I/O chassis	19-Jan-21 A	27-Jan-21 A	19-Jan-21	27-Jan-21	100%	0	$8,365	David E. Anderson
P365P360	Fabricate PS and Aux I/O chassis	27-Jan-21 A	14-May-21 A	27-Jan-21	22-Apr-21	100%	0	$0	David E. Anderson
P365P363	Fabrication of PS and Aux I/O chassis Complete (MS)		14-May-21 A		22-Apr-21	100%	0	$0	David E. Anderson
P365P362	Receive PS and Aux I/O chassis	17-May-21 A	17-May-21 A	22-Apr-21	23-Apr-21	100%	0	$17,125	David E. Anderson
P.03.06.05.03.03	Fabricate Digital and Analog Modules	19-Jan-21 A	10-Jun-21	27-Jan-21	09-Apr-21		8	$29,053	
P365P371	Procure Digital Module Hardware and PCB	19-Jan-21 A	03-Feb-21 A	27-Jan-21	03-Feb-21	100%	0	$5,628	David E. Anderson
P365P375	Procure Analog Module Hardware and PCB	01-Feb-21 A	05-Feb-21 A	03-Feb-21	10-Feb-21	100%	0	$5,780	David E. Anderson
P365P372	Fabricate Digital Module Hardware and PCB	04-Feb-21 A	25-Feb-21 A	03-Feb-21	31-Mar-21	100%	0	$0	David E. Anderson
P365P376	Fabricate Analog Module Hardware and PCB	05-Feb-21 A	17-Feb-21 A	10-Feb-21	08-Apr-21	100%	0	$0	David E. Anderson
P365P377	Receive Analog Module Hardware and PCB	18-Feb-21 A	10-Jun-21	08-Apr-21	09-Apr-21	50%	8	$8,822	David E. Anderson
P365P373	Receive Digital Module Hardware and PCB	26-Feb-21 A	26-Feb-21 A	31-Mar-21	01-Apr-21	100%	0	$8,822	David E. Anderson
P.03.06.05.03.04	PXI Hardware	11-Jan-21 A	29-Jan-21 A	11-Jan-21	03-Mar-21		0	$262,447	
P365P300	Procure PXI hardware	11-Jan-21 A	15-Jan-21 A	11-Jan-21	15-Jan-21	100%	0	$1,974	David E. Anderson
P365P302	Fabricate PXI hardware	15-Jan-21 A	28-Jan-21 A	19-Jan-21	02-Mar-21	100%	0	$0	David E. Anderson
P365P303	Fabricate PXI hardware Complete (MS)		28-Jan-21 A		02-Mar-21	100%	0	$0	David E. Anderson
P365P304	Receive PXI hardware	29-Jan-21 A	29-Jan-21 A	03-Mar-21	03-Mar-21	100%	0	$260,473	David E. Anderson
P.03.06.05.03.05	Other	04-Jan-21 A	29-Jun-21	10-Feb-21	22-Mar-21		21	$97,579	



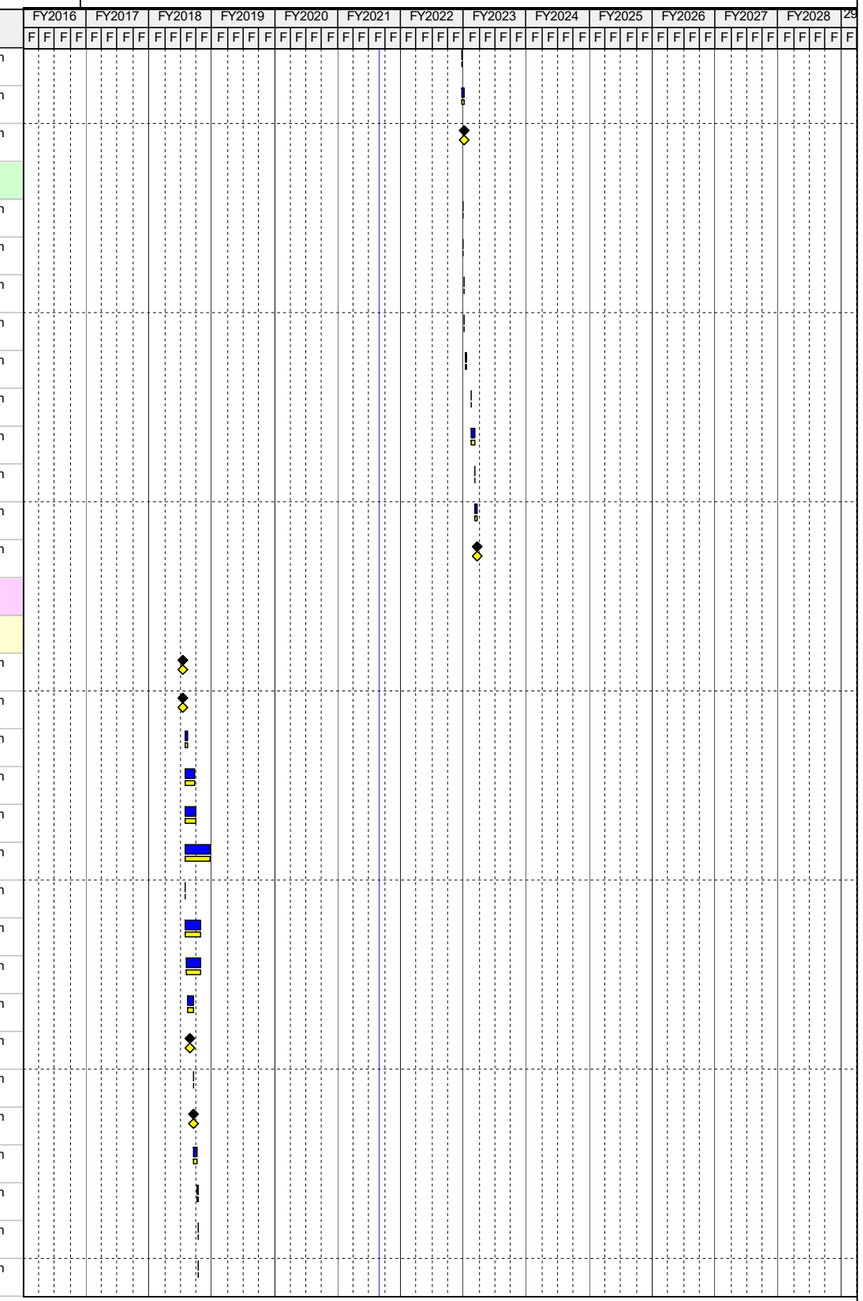
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P365P370	Procure and Receive rack-mount components	04-Jan-21 A	20-Jan-21 A	19-Feb-21	08-Mar-21	100%	0	$63,061	David E. Anderson
P365P310	Procure and Receive mice, SSD and memory kits	27-Jan-21 A	25-Feb-21 A	10-Feb-21	25-Feb-21	100%	0	$3,995	David E. Anderson
P365P380	Procure and Receive cables	01-Feb-21 A	10-Jun-21	23-Feb-21	12-Mar-21	75%	8	$9,642	David E. Anderson
P365P400	Procure and Receive Controller PS	15-Feb-21 A	21-May-21 A	04-Mar-21	22-Mar-21	100%	0	$15,412	David E. Anderson
P365P390	Procure and Receive misc. interface boxes and cabling	11-Jun-21	29-Jun-21	01-Mar-21	17-Mar-21	0%	13	$5,469	David E. Anderson
P.03.06.05.04	Installation - Modulator Control System (NEP36540)	18-Feb-21 A	11-Oct-22	08-Mar-21	11-Oct-22		340	$159,965	
P365i305	Install PXI Modules in PXI Chassis	18-Feb-21 A	22-Feb-21 A	08-Mar-21	10-Mar-21	100%	0	$7,057	David E. Anderson
P365i465	Assemble Aux I/O Chassis	01-Apr-21 A	15-Apr-21 A	08-Jun-21	21-Jun-21	100%	0	$14,113	David E. Anderson
P365i335	Install Memory Kits & Cloned SSD's	15-Apr-21 A	23-Apr-21 A	11-Mar-21	17-Mar-21	100%	0	$11,761	David E. Anderson
P365i485	Test Aux I/O Chassis on Bench	19-Apr-21 A	20-Apr-21 A	24-Jun-21	25-Jun-21	100%	0	$1,445	David E. Anderson
P365i585	Fabricate & Assemble Mov V Dividers	26-Apr-21 A	29-Apr-21 A	24-Mar-21	29-Mar-21	100%	0	$9,409	David E. Anderson
P365i315	Flash PXI Chassis and Set SN. Set CPU Name	03-May-21 A	03-Jun-21	30-Mar-21	30-Mar-21	50%	3	$1,445	David E. Anderson
P365i345	Set PXI Module Names & Test ALI PXI Modules	04-May-21 A	03-Jun-21	31-Mar-21	31-Mar-21	50%	3	$1,445	David E. Anderson
P365i385	Assemble Analog Connector PCBs	11-Jun-21	18-Jun-21	30-Apr-21	07-May-21	0%	6	$14,113	David E. Anderson
P365i395	Assemble Analog Modules	18-Jun-21	02-Jul-21	10-May-21	21-May-21	0%	10	$14,113	David E. Anderson
P365i455	Assemble Power Supply Chassis	02-Jul-21	19-Jul-21	24-May-21	07-Jun-21	0%	10	$14,113	David E. Anderson
P365i475	Set Voltages & Test Power Supplies on Bench	19-Jul-21	21-Jul-21	22-Jun-21	23-Jun-21	0%	2	$1,445	David E. Anderson
P365i375	Assemble Digital Modules and SCR Interface Chassis	21-Jul-21	18-Aug-21	01-Apr-21	30-Apr-21	0%	20	$14,113	David E. Anderson
P365i405	Test Digital Modules with Controller	18-Aug-21	20-Aug-21	24-May-21	25-May-21	0%	2	$1,445	David E. Anderson
P365i575	Fabricate & Assemble CB V Dividers	18-Aug-21	24-Aug-21	18-Mar-21	23-Mar-21	0%	4	$9,409	David E. Anderson
P365i415	Test Analog Modules with Controller	20-Aug-21	24-Aug-21	26-May-21	27-May-21	0%	2	$1,445	David E. Anderson
P.03.06.05.04.01	Phase 1 Installation	08-Sep-21	21-Apr-22	27-Jul-21	21-Apr-22		151	$14,090	
P365i325	Install SCL-MOD-30 Controller Equipment in Rack and Interface	08-Sep-21	15-Sep-21	27-Jul-21	03-Aug-21	0%	6	$11,085	David E. Anderson
P365i355	Follow Test Procedure for SCL-MOD-30	19-Apr-22	21-Apr-22	19-Apr-22	21-Apr-22	0%	3	$3,005	David E. Anderson
P.03.06.05.04.02	Phase 2 Installation	10-Dec-21	27-Jul-22	27-Oct-21	27-Jul-22		153	$14,441	
P365i595	Install SCL-MOD-28 Controller Equipment in Rack and Interface	10-Dec-21	17-Dec-21	27-Oct-21	03-Nov-21	0%	6	$11,437	David E. Anderson
P365i605	Follow Test Procedure for SCL-MOD-28	25-Jul-22	27-Jul-22	25-Jul-22	27-Jul-22	0%	3	$3,005	David E. Anderson
P.03.06.05.04.03	Phase 3 Installation	23-Mar-22	11-Oct-22	09-Feb-22	11-Oct-22		141	$14,560	
P365i615	Install SCL-MOD-25 Controller Equipment in Rack and Interface	23-Mar-22	30-Mar-22	09-Feb-22	16-Feb-22	0%	6	$11,437	David E. Anderson
P365i625	Follow Test Procedure for SCL-MOD-25	07-Oct-22	11-Oct-22	07-Oct-22	11-Oct-22	0%	3	$3,124	David E. Anderson
P.03.06.06	Integrated System	24-Jul-18 A	21-Dec-22	24-Jul-18	21-Dec-22		216	$206,770	
P.03.06.06.02	Design - Integrated System - (NEP36620)	24-Jul-18 A	16-Sep-19 A	24-Jul-18	16-Sep-19		0	$0	
P366D31	Review Cable diagrams/pull lists and correct/modify - Part 1	24-Jul-18 A	28-Sep-18 A	24-Jul-18	28-Sep-18	100%	0	$0	David E. Anderson



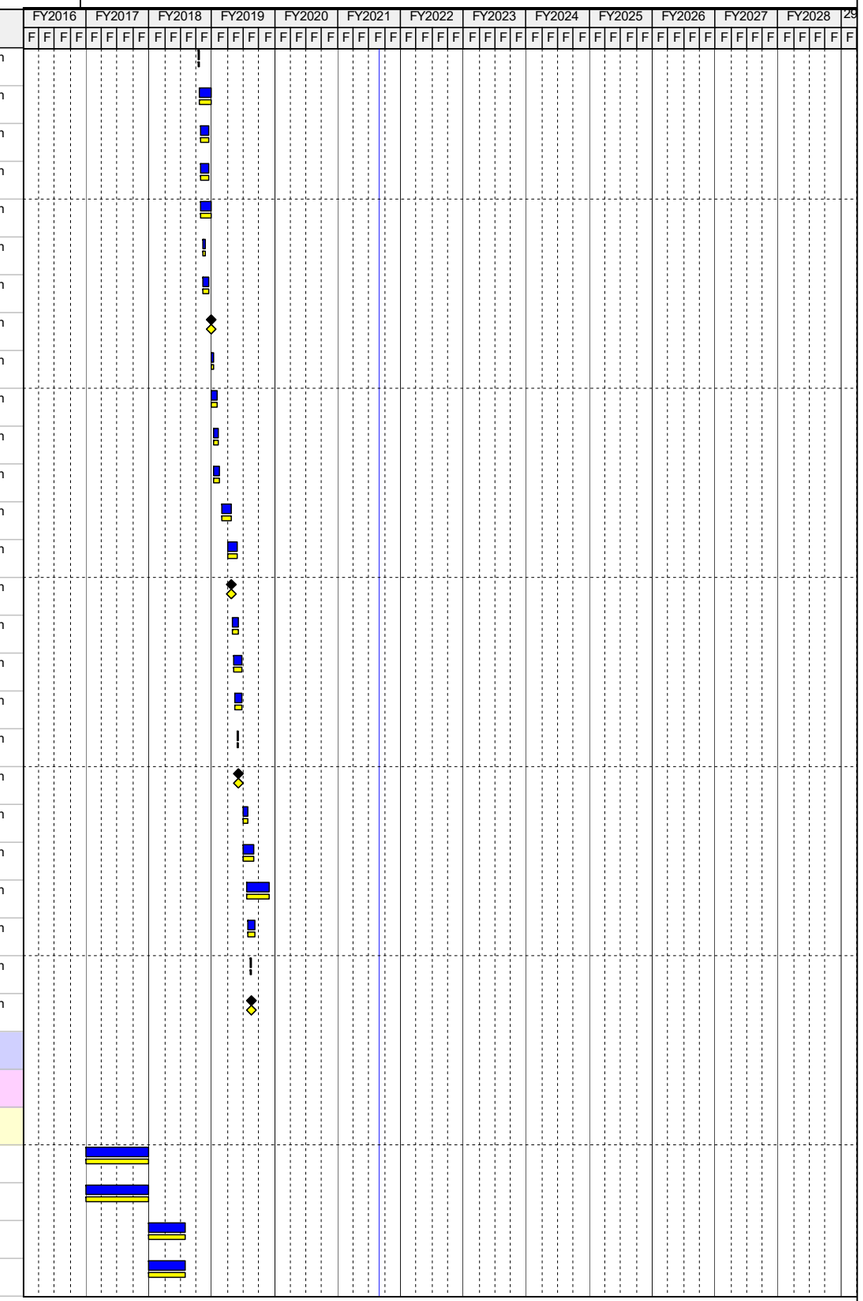
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P366D31B	Review Cable diagrams/pull lists and correct/modify - Continued from 90%	01-Oct-18 A	31-Oct-18 A	01-Oct-18	31-Oct-18	100%	0	$0	David E. Anderson
P366D26	Review interface diagrams and correct/modify to represent AT-HVCM topology	01-Feb-19 A	29-Mar-19 A	01-Feb-19	29-Mar-19	100%	0	$0	David E. Anderson
P366D41	Review System Block Diagrams and Schematics and correct/modify	01-Apr-19 A	18-Apr-19 A	01-Apr-19	18-Apr-19	100%	0	$0	David E. Anderson
P366D46	Prep for AT-HVCM System Final Design Review (FDR)	22-Apr-19 A	20-May-19 A	22-Apr-19	20-May-19	100%	0	$0	David E. Anderson
P366D76	AT-HVCM System Final Design Review (FDR) (21-May-19)	21-May-19 A	22-May-19 A	21-May-19	22-May-19	100%	0	$0	David E. Anderson
P366MS86	Complete AT-HVCM - Final Design Review Meeting (MS)		22-May-19 A		22-May-19	100%	0	$0	David E. Anderson
P366D56	AT-HVCM FDR action item response time	23-May-19 A	23-Aug-19 A	23-May-19	23-Aug-19	100%	0	$0	David E. Anderson
P366D61	Review test procedures and update to reflect AT-HVCM configuration	17-Jun-19 A	30-Aug-19 A	17-Jun-19	30-Aug-19	100%	0	$0	David E. Anderson
P366D66	Specify test equipment requirements	16-Aug-19 A	22-Aug-19 A	16-Aug-19	22-Aug-19	100%	0	$0	David E. Anderson
P366D61b	Review test procedures and update to reflect AT-HVCM configuration - Continued	03-Sep-19 A	16-Sep-19 A	03-Sep-19	16-Sep-19	100%	0	$0	David E. Anderson
P.03.06.06.03	Procure/Fab - Integrated System - (NEP36630)	24-May-21 A	25-May-21 A	23-Mar-21	05-May-21		0	$0	
P366P71	Order and receive test equipment	24-May-21 A	24-May-21 A	23-Mar-21	04-May-21	100%	0	$13,621	David E. Anderson
P366P71a	Order and receive test equipment - Adjustment Activity	25-May-21 A	25-May-21 A	05-May-21	05-May-21	100%	0	($13,621)	David E. Anderson
P.03.06.06.04	Installation - Integrated System	15-Feb-22	21-Dec-22	16-Dec-21	21-Dec-22		216	$206,770	
P.03.06.06.04.01	Phase 1 Installation	15-Feb-22	01-Jul-22	16-Dec-21	01-Jul-22		97	$75,029	
P366I186	Fill systems with oil, double check for leaks, gate drive test for SCL-MOD-30	15-Feb-22	16-Feb-22	16-Dec-21	17-Dec-21	0%	2	$15,750	David E. Anderson
P366i187	Test SCL-Mod30 cooling system and electronics	17-Feb-22	18-Feb-22	20-Dec-21	21-Dec-21	0%	2	$2,833	David E. Anderson
P366I206	Check CO2 system operation locally for SCL-MOD-30	21-Feb-22	22-Feb-22	22-Dec-21	03-Jan-22	0%	2	$833	David E. Anderson
P366I196	Install external resistive divider for calibration for SCL-MOD-30	23-Feb-22	23-Feb-22	06-Jan-22	06-Jan-22	0%	1	$935	David E. Anderson
P366I201	Perform signal generator timing fault, simulated for SCL-MOD-30	22-Apr-22	28-Apr-22	22-Apr-22	28-Apr-22	0%	5	$11,544	David E. Anderson
P366I216	Perform klystron arc protection verification for SCL-MOD-30	27-May-22	01-Jun-22	27-May-22	01-Jun-22	0%	3	$6,593	David E. Anderson
P366I211	Perform low duty cycle operation, adj. FPGA, pulse flatten, optimize pulse sequence, calibrate readbacks for SCL-MOD-30	02-Jun-22	15-Jun-22	02-Jun-22	15-Jun-22	0%	10	$17,899	David E. Anderson
P366I192	Final SCR system checkout under power SCL-MOD-30	16-Jun-22	17-Jun-22	16-Jun-22	17-Jun-22	0%	2	$4,074	David E. Anderson
P366I226	Operate SCL-MOD-30 modulator at full duty cycle	20-Jun-22	01-Jul-22	20-Jun-22	01-Jul-22	0%	10	$14,568	David E. Anderson
P366IMS003	Turn SCL-MOD-30 over for operations (MS)		01-Jul-22		01-Jul-22	0%	0	$0	David E. Anderson
P.03.06.06.04.02	Phase 2 Installation	03-May-22	05-Oct-22	16-Mar-22	05-Oct-22		109	$65,006	
P366I131	Fill systems with oil, double check for leaks, gate drive test for SCL-MOD-28	03-May-22	04-May-22	16-Mar-22	17-Mar-22	0%	2	$14,322	David E. Anderson
P366i132	Test SCL-Mod28 cooling system and electronics	05-May-22	06-May-22	18-Mar-22	21-Mar-22	0%	2	$2,833	David E. Anderson
P366I151	Check CO2 system operation locally for SCL-MOD-28	09-May-22	10-May-22	22-Mar-22	23-Mar-22	0%	2	$476	David E. Anderson
P366I141	Install external resistive divider for calibration for SCL-MOD-28	20-Jul-22	20-Jul-22	20-Jul-22	20-Jul-22	0%	1	$935	David E. Anderson
P366I146	Perform signal generator timing fault, simulated for SCL-MOD-28	28-Jul-22	03-Aug-22	28-Jul-22	03-Aug-22	0%	5	$10,116	David E. Anderson
P366I161	Perform klystron arc protection verification for SCL-MOD-28	01-Sep-22	02-Sep-22	01-Sep-22	02-Sep-22	0%	2	$5,879	David E. Anderson
P366I156	Perform low duty cycle operation, adj. FPGA, pulse flatten, optimize pulse sequence, calibrate readbacks for SCL-MOD-28	06-Sep-22	19-Sep-22	06-Sep-22	19-Sep-22	0%	10	$15,995	David E. Anderson



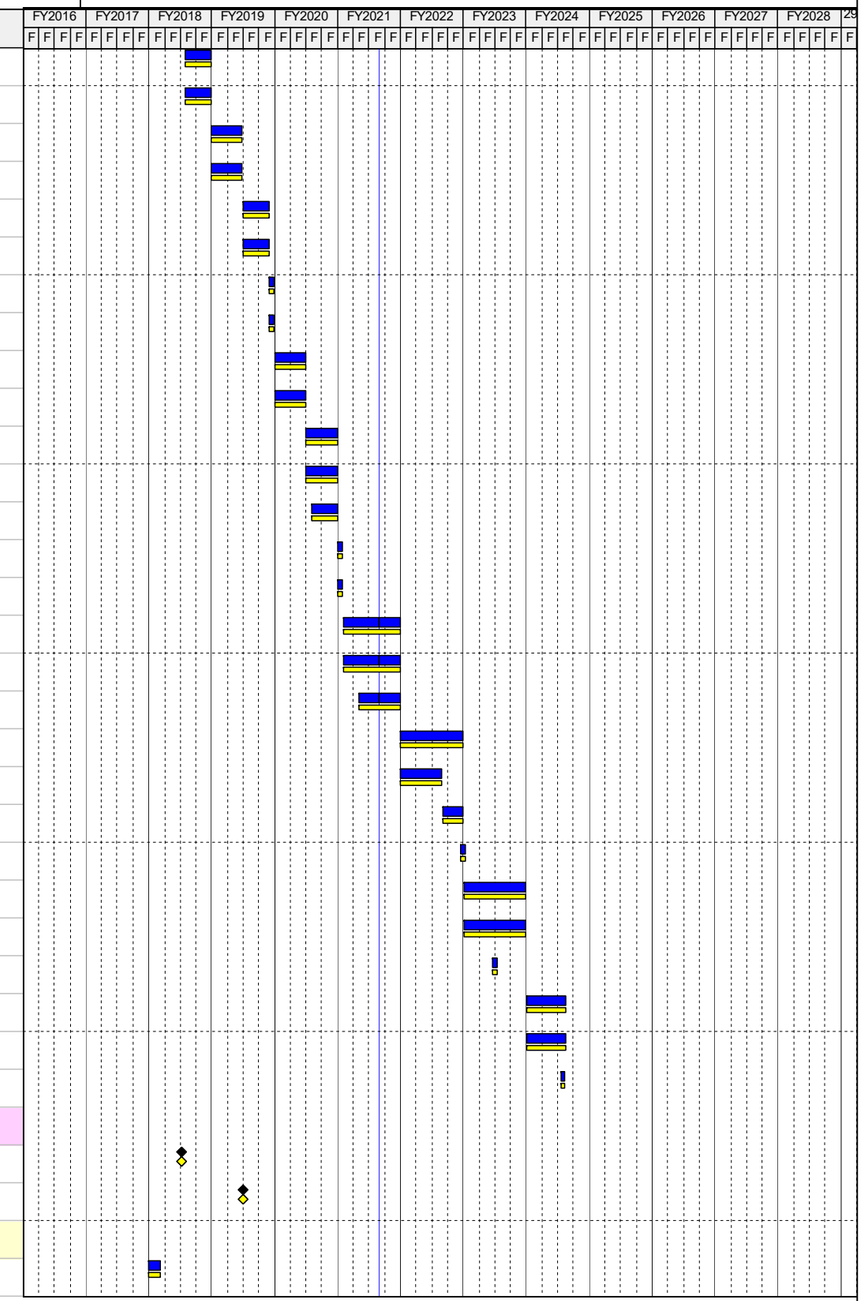
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P366I191	Final SCR system checkout under power SCL-MOD-28	20-Sep-22	21-Sep-22	20-Sep-22	21-Sep-22	0%	2	$3,323	David E. Anderson
P366I171	Operate SCL-MOD-28 modulator at full duty cycle	22-Sep-22	05-Oct-22	22-Sep-22	05-Oct-22	0%	10	$11,127	David E. Anderson
P366IMS002	Turn SCL-MOD-28 over for operations (MS)		05-Oct-22		05-Oct-22	0%	0	$0	David E. Anderson
P.03.06.06.04.03	Phase 3 Installation	27-Sep-22	21-Dec-22	27-Sep-22	21-Dec-22		60	$66,735	
P366I76	Fill systems with oil, double check for leaks, gate drive test for SCL-MOD-25	27-Sep-22	28-Sep-22	27-Sep-22	28-Sep-22	0%	2	$14,322	David E. Anderson
P366i77	Test SCL-Mod25 cooling system and electronics	29-Sep-22	30-Sep-22	29-Sep-22	30-Sep-22	0%	2	$2,833	David E. Anderson
P366I96	Check CO2 system operation locally for SCL-MOD-25	03-Oct-22	04-Oct-22	03-Oct-22	04-Oct-22	0%	2	$494	David E. Anderson
P366I86	Install external resistive divider for calibration for SCL-MOD-25	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	0%	1	$962	David E. Anderson
P366I91	Perform signal generator timing fault, simulated for SCL-MOD-25	12-Oct-22	18-Oct-22	12-Oct-22	18-Oct-22	0%	5	$10,515	David E. Anderson
P366I106	Perform klystron arc protection verification for SCL-MOD-25	16-Nov-22	17-Nov-22	16-Nov-22	17-Nov-22	0%	2	$6,112	David E. Anderson
P366I101	Perform low duty cycle operation, adj. FPGA, pulse flatten, optimize pulse sequence, calibrate readbacks for SCL-MOD-25	18-Nov-22	05-Dec-22	18-Nov-22	05-Dec-22	0%	10	$16,627	David E. Anderson
P366I126	Final SCR system checkout under power SCL-MOD-25	06-Dec-22	07-Dec-22	06-Dec-22	07-Dec-22	0%	2	$3,442	David E. Anderson
P366I116	Operate SCL-MOD-25 modulator at full duty cycle	08-Dec-22	21-Dec-22	08-Dec-22	21-Dec-22	0%	10	$11,428	David E. Anderson
P366IMS001	Turn SCL-MOD-25 over for operations (MS)		21-Dec-22		21-Dec-22	0%	0	$0	David E. Anderson
P.03.06.07	Modulator Test Article & Testing	17-Apr-18 A	30-Aug-19 A	17-Apr-18	30-Aug-19		0	$0	
P.03.06.07.02	Design - Modulator Test Article & Testing - (NEP36720)	17-Apr-18 A	30-Aug-19 A	17-Apr-18	30-Aug-19		0	$0	
P367D150	Receive new bus assembly hardware. (MS)		17-Apr-18 A		17-Apr-18	100%	0	$0	David E. Anderson
P367D160	Complete freewheeling diode assemblies (MS)		20-Apr-18 A		20-Apr-18	100%	0	$0	David E. Anderson
P367D155	Receive new rectifier assembly hardware.	01-May-18 A	14-May-18 A	01-May-18	14-May-18	100%	0	$0	David E. Anderson
P367D175	Create BOM for oil cooling system.	01-May-18 A	25-Jun-18 A	01-May-18	25-Jun-18	100%	0	$0	David E. Anderson
P367D195	Create detailed test plan.	01-May-18 A	29-Jun-18 A	01-May-18	29-Jun-18	100%	0	$0	David E. Anderson
P367D200	Complete Design of the laminate bus alignment system	01-May-18 A	21-Sep-18 A	01-May-18	21-Sep-18	100%	0	$0	David E. Anderson
P367D205	Designer Available to work on AT-HVCM	02-May-18 A	02-May-18 A	02-May-18	02-May-18	100%	0	$0	David E. Anderson
P367D210	Design effort for flexible stub Eriflex option 1	02-May-18 A	27-Jul-18 A	02-May-18	27-Jul-18	100%	0	$0	David E. Anderson
P367D215	Design effort for flexible stub Cu sheet option 2	09-May-18 A	27-Jul-18 A	09-May-18	27-Jul-18	100%	0	$0	David E. Anderson
P367D165	Build and test sub-assemblies.	15-May-18 A	19-Jun-18 A	15-May-18	19-Jun-18	100%	0	$0	David E. Anderson
P367D185	Receive remaining parts for oil cooling system. (MS)		31-May-18 A		31-May-18	100%	0	$0	David E. Anderson
P367D170	Pull tank from HEBT.	15-Jun-18 A	19-Jun-18 A	15-Jun-18	19-Jun-18	100%	0	$0	David E. Anderson
P367MS335	Complete build and test of new AT-HVCM sub assemblies (MS)		19-Jun-18 A		19-Jun-18	100%	0	$0	David E. Anderson
P367D190	Reconfigure 3rd generation AT-HVCM tank.	20-Jun-18 A	09-Jul-18 A	20-Jun-18	09-Jul-18	100%	0	$0	David E. Anderson
P367D280	Return updated tank to HEBT.	10-Jul-18 A	12-Jul-18 A	10-Jul-18	12-Jul-18	100%	0	$0	David E. Anderson
P367D285	Test modulator to 60kV.	13-Jul-18 A	17-Jul-18 A	13-Jul-18	17-Jul-18	100%	0	$0	David E. Anderson
P367MS002	Solley Returns from his 7/2 to - 7/17 vacation	17-Jul-18 A	17-Jul-18 A	17-Jul-18	17-Jul-18	100%	0	$0	David E. Anderson



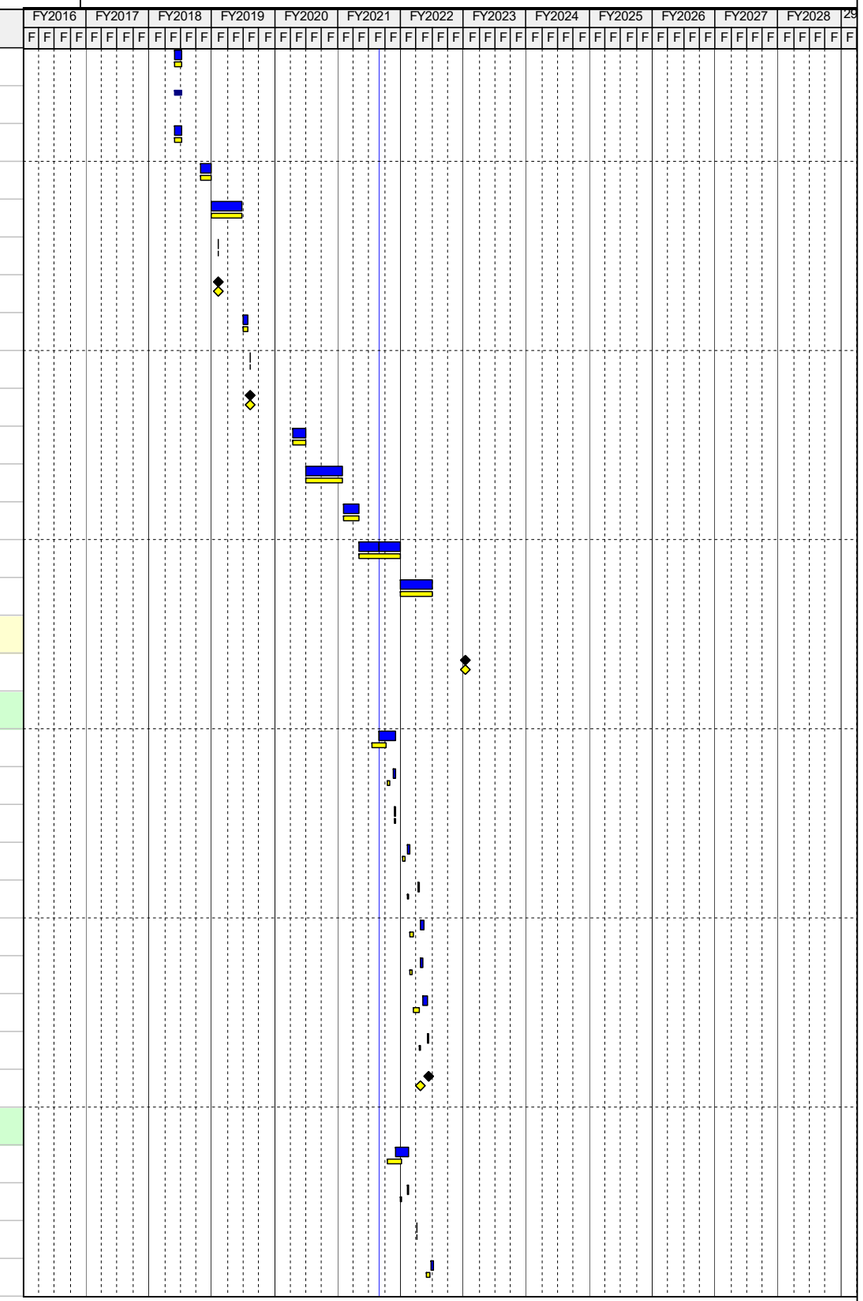
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P367D290	Spark gap testing at 80kV to verify fault energy.	18-Jul-18 A	19-Jul-18 A	18-Jul-18	19-Jul-18	100%	0	$0	David E. Anderson
P367D295	Test modulator per phase 1 test plan.	20-Jul-18 A	28-Sep-18 A	20-Jul-18	28-Sep-18	100%	0	$0	David E. Anderson
P367D220	Quote & Fabricate stub option 1	30-Jul-18 A	13-Sep-18 A	30-Jul-18	13-Sep-18	100%	0	$0	David E. Anderson
P367D225	Quote & Fabricate stub option 2	30-Jul-18 A	13-Sep-18 A	30-Jul-18	13-Sep-18	100%	0	$0	David E. Anderson
P367D265	Order and Receive capacitor bank plates. - Part 1	01-Aug-18 A	28-Sep-18 A	01-Aug-18	28-Sep-18	100%	0	$0	David E. Anderson
P367D245	Check Design Capacitor Bank Plates.	10-Aug-18 A	28-Aug-18 A	10-Aug-18	28-Aug-18	100%	0	$0	David E. Anderson
P367D250	Mini review laminate bus alignment system/capacitor bus plates/ flexible bus stub.	14-Aug-18 A	14-Sep-18 A	14-Aug-18	14-Sep-18	100%	0	$0	David E. Anderson
P367MS295	Complete Phase 1 Testing of New Modulator (MS)		28-Sep-18 A		28-Sep-18	100%	0	$0	David E. Anderson
P367D255	Incorporate mini review design changes	01-Oct-18 A	09-Oct-18 A	01-Oct-18	09-Oct-18	100%	0	$0	David E. Anderson
P367D265B	Order and Receive capacitor bank plates. - Continued from 5%	01-Oct-18 A	31-Oct-18 A	01-Oct-18	31-Oct-18	100%	0	$0	David E. Anderson
P367D235	Evaluate options 1 and 2 (hi pot, flex, ripple, temp)	10-Oct-18 A	06-Nov-18 A	10-Oct-18	06-Nov-18	100%	0	$0	David E. Anderson
P367D260	Order and Receive laminate bus alignment system.	10-Oct-18 A	13-Nov-18 A	10-Oct-18	13-Nov-18	100%	0	$0	David E. Anderson
P367D305	Run modulator at full power for > 30 days. Collect data specified in phase 2 test plan.	30-Nov-18 A	21-Jan-19 A	30-Nov-18	21-Jan-19	100%	0	$0	David E. Anderson
P367D237	Procure and Receive Material For Option 3	02-Jan-19 A	25-Feb-19 A	02-Jan-19	25-Feb-19	100%	0	$0	David E. Anderson
P367MS305	Complete Phase 2 Testing of New Modulator (MS)		21-Jan-19 A		21-Jan-19	100%	0	$0	David E. Anderson
P367D300	Install laminated bus alignment system/bus stub/cap bank plates.	28-Jan-19 A	07-Mar-19 A	28-Jan-19	07-Mar-19	100%	0	$0	David E. Anderson
P367D310	Analyze AT-HVCM results and compare with HVCM. 50%	08-Feb-19 A	29-Mar-19 A	08-Feb-19	29-Mar-19	100%	0	$0	David E. Anderson
P367D315	Design, order additional test article components, and test to address any issues	15-Feb-19 A	29-Mar-19 A	15-Feb-19	29-Mar-19	100%	0	$0	David E. Anderson
P367D230	Integrate options 1, 2 and 3 on test stand	01-Mar-19 A	04-Mar-19 A	01-Mar-19	04-Mar-19	100%	0	$0	David E. Anderson
P367MS240	Select option 1, 2 or 3 or down select to rigid stub (MS)		04-Mar-19 A		04-Mar-19	100%	0	$0	David E. Anderson
P367D310B	Analyze AT-HVCM results and compare with HVCM. - Continued	01-Apr-19 A	30-Apr-19 A	01-Apr-19	30-Apr-19	100%	0	$0	David E. Anderson
P367D315B	Design, order additional test article components, and test to address any issues - Continued	01-Apr-19 A	31-May-19 A	01-Apr-19	31-May-19	100%	0	$0	David E. Anderson
P367D330	Run second test	22-Apr-19 A	30-Aug-19 A	22-Apr-19	30-Aug-19	100%	0	$0	David E. Anderson
P367D199	Create alignment system assembly drawings	01-May-19 A	07-Jun-19 A	01-May-19	07-Jun-19	100%	0	$0	David E. Anderson
P367D320	Conduct selection review, comparing old and new topologies.	14-May-19 A	20-May-19 A	14-May-19	20-May-19	100%	0	$0	David E. Anderson
P367MS325	Select New or Old Topology Option (MS)		20-May-19 A		20-May-19	100%	0	$0	David E. Anderson
P.03.07 Utilities		03-Oct-16 A	17-May-24	03-Oct-16	17-May-24		733	$6,079,482	
P.03.07.01 Management and System Integration - Utilities		03-Oct-16 A	16-May-24	03-Oct-16	16-May-24		732	$1,104,496	
P.03.07.01.01 Management and System Integration - Utilities - (NEP37110)		03-Oct-16 A	16-May-24	03-Oct-16	16-May-24		732	$1,104,496	
P371M1	WBS Management P.3.7 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Greg Norman
P371M335	P.3.7.7 CAM management FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Greg Norman
P371M340	P.3.7.7 CAM management FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Greg Norman
P371M4	WBS Management P.3.7 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Greg Norman



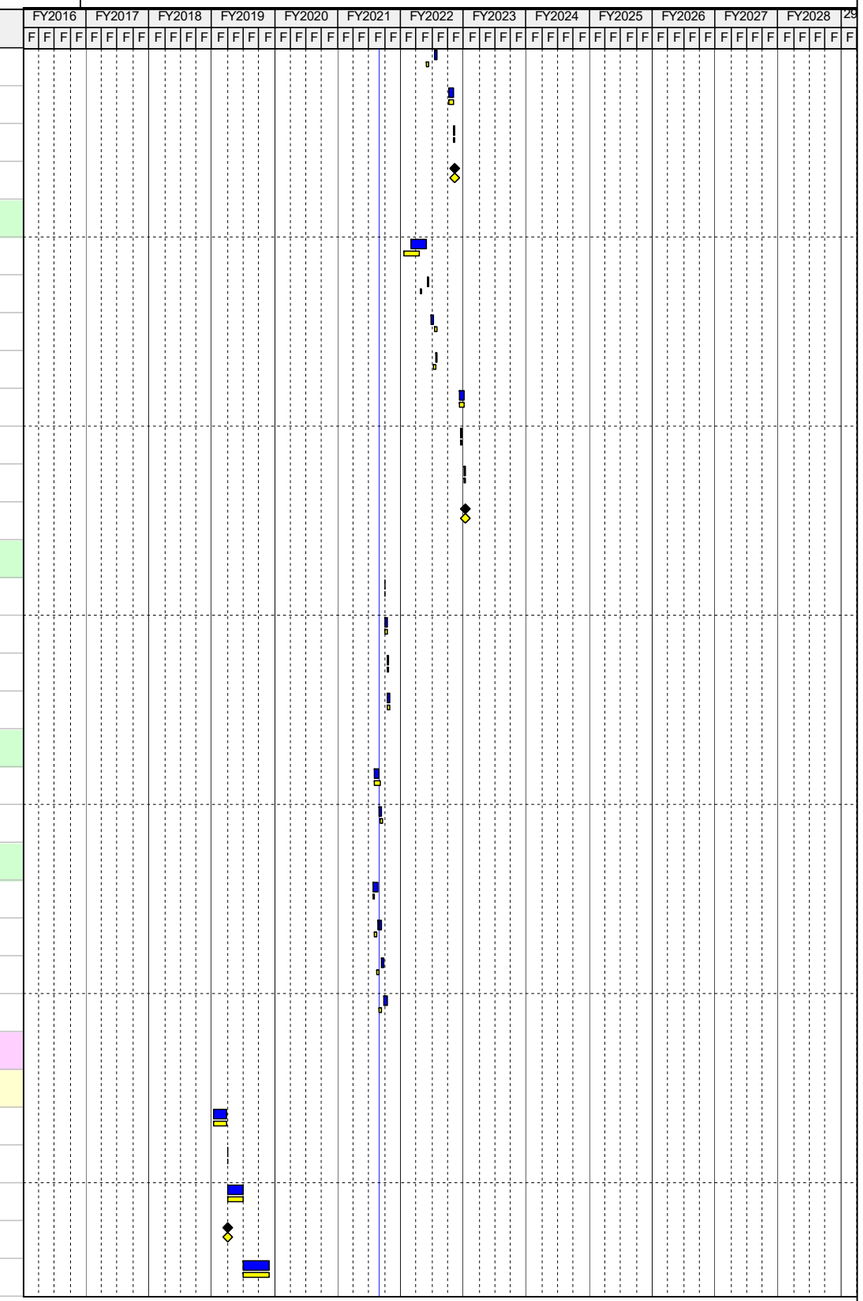
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P371M6	WBS Management P.3.7 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Greg Norman
P371M345	P.3.7.7 CAM management FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Greg Norman
P371M11	WBS Management P.3.7 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Greg Norman
P371M350	P.3.7.7 CAM management FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Greg Norman
P371M350B	P.3.7.7 CAM management FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Greg Norman
P371M11B	WBS Management P.3.7 FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Greg Norman
P371M11C	WBS Management P.3.7 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Greg Norman
P371M350C	P.3.7.7 CAM management FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Greg Norman
P371M16	WBS Management P.3.7 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Greg Norman
P371M355	P.3.7.7 CAM management FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Greg Norman
P371M355a	P.3.7.7 CAM management FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Greg Norman
P371M16a	WBS Management P.3.7 FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Greg Norman
P371M16b	WBS Management P.3.7 FY20 (LOE) (May20 - Sep20) (Smith)	01-May-20 A	30-Sep-20 A	01-May-20	30-Sep-20	100%	0	$0	Greg Norman
P371M21	WBS Management P.3.7 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Greg Norman
P371M360	P.3.7.7 CAM management FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Greg Norman
P371M21a	WBS Management P.3.7 FY21 (LOE) Part 2 (Nov20 - Sep21)	02-Nov-20 A	30-Sep-21	02-Nov-20	30-Sep-21	61.26%	86	$96,595	Greg Norman
P371M360a	P.3.7.7 CAM management FY21 (LOE) Part 2 (Nov20 - Sep21)	02-Nov-20 A	30-Sep-21	02-Nov-20	30-Sep-21	61.26%	86	$148,147	Greg Norman
P371M363	P.3.7.7 Electrical Installation Coordinator (LOE) (Feb21-Sep21) FY21)	01-Feb-21 A	30-Sep-21	01-Feb-21	30-Sep-21	49.41%	86	$217,308	Greg Norman
P371M26	WBS Management P.3.7 FY22 (LOE)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$108,772	Greg Norman
P371M367	P.3.7.7 Electrical Installation Coordinator (LOE) (Oct21-May22) (FY22)	01-Oct-21	31-May-22	01-Oct-21	31-May-22	0%	161	$219,604	Greg Norman
P371M365	P.3.7.7 Electrical Installation Support (LOE) (Jun22-Sep22) (FY22)	01-Jun-22	30-Sep-22	01-Jun-22	30-Sep-22	0%	86	$32,043	Greg Norman
P371M003	P.3.7 Organize and Verify Documentation for Phase 1 ARR	13-Sep-22	10-Oct-22	13-Sep-22	10-Oct-22	0%	20	$8,843	Greg Norman
P371M370	P.3.7.7 Electrical Installation Support (LOE) (FY23)	03-Oct-22	29-Sep-23	03-Oct-22	29-Sep-23	0%	245	$104,064	Greg Norman
P371M31	WBS Management P.3.7 FY23 (LOE)	03-Oct-22	29-Sep-23	03-Oct-22	29-Sep-23	0%	245	$57,915	Greg Norman
P371M002	P.3.7 Organize and Verify Documentation for Phase 2 ARR	16-Mar-23	13-Apr-23	16-Mar-23	13-Apr-23	0%	20	$9,080	Greg Norman
P371M35	WBS Management P.3.7 FY24 (LOE)	02-Oct-23	16-May-24	02-Oct-23	16-May-24	0%	154	$43,669	Greg Norman
P371M380	P.3.7.7 Electrical Installation Support (LOE) (FY24)	02-Oct-23	16-May-24	02-Oct-23	16-May-24	0%	154	$49,025	Greg Norman
P371M001	P.3.7 Organize and Verify Documentation for Phase 3 ARR	17-Apr-24	14-May-24	17-Apr-24	14-May-24	0%	20	$9,430	Greg Norman
P.03.07.02 Water Utilities - New Cold Linac SCL RF Cooling System (KL-06)		02-Oct-17 A	12-Oct-22	02-Oct-17	12-Oct-22		341	$912,222	
P372MS001	Complete preliminary design for cooling and electrical systems (MS)		12-Apr-18 A		12-Apr-18	100%	0	$0	Greg Norman
P372MS006	Complete final design of cooling and electrical systems (Predecessor is AE Design of the Klystron Gallery Upgrades) (MS)		29-Mar-19 A		29-Mar-19	100%	0	$0	Greg Norman
P.03.07.02.02 Design - Water Utilities - New Cold Linac SCL RF Cooling System (KL-06) - (NEP37220)		02-Oct-17 A	31-Mar-22	02-Oct-17	31-Mar-22		206	$135,249	
P372D21	Criteria Generation for Utilities System Design by AE	02-Oct-17 A	05-Dec-17 A	02-Oct-17	05-Dec-17	100%	0	$0	Greg Norman



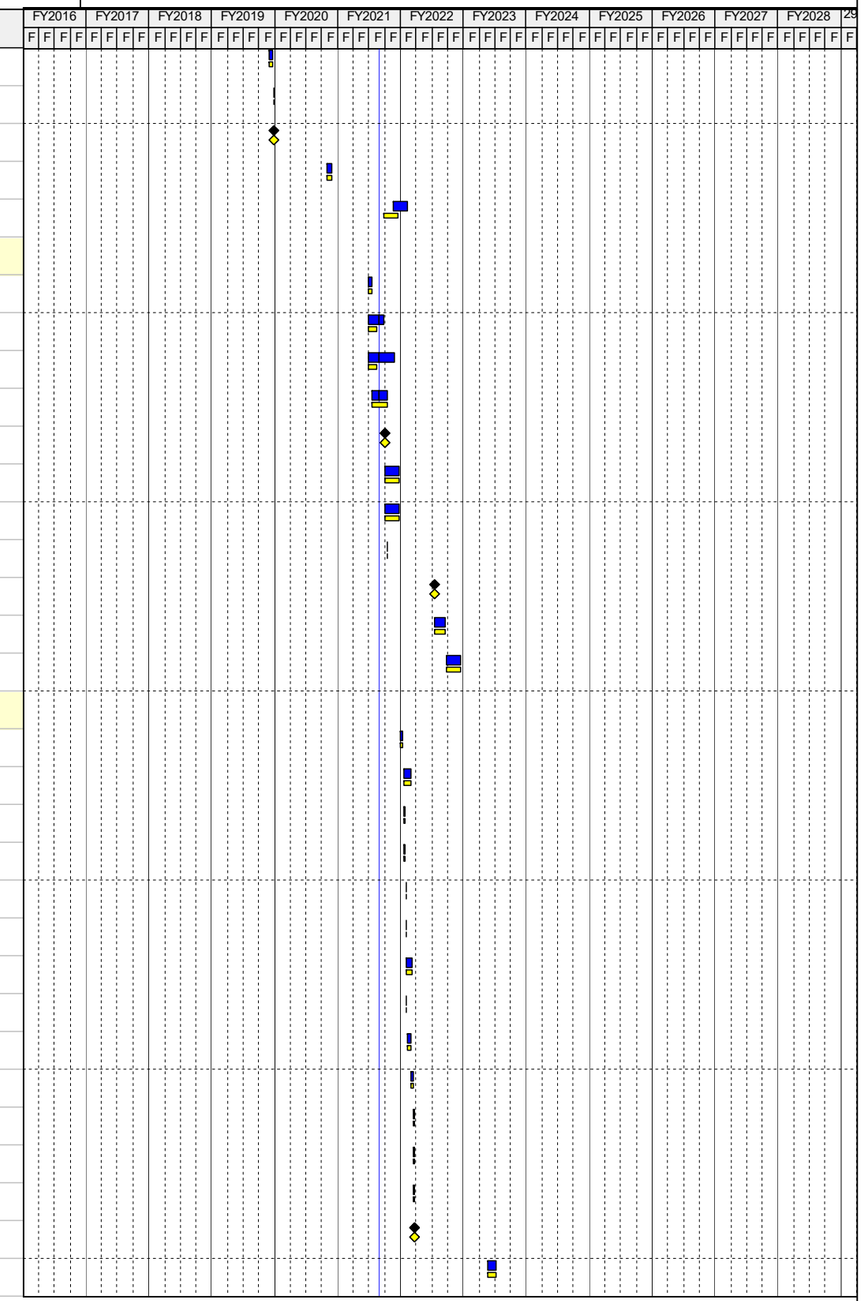
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P372D1	In-House Design (Prior to Title II Design)	01-Mar-18 A	12-Apr-18 A	01-Mar-18	12-Apr-18	100%	0	$0	Greg Norman
P372D11	Estimating and Schedule Support	01-Mar-18 A	12-Apr-18 A	01-Mar-18	12-Apr-18	100%	0	$0	Greg Norman
P372D16	Management Support of Title 1 Design Effort	01-Mar-18 A	12-Apr-18 A	01-Mar-18	12-Apr-18	100%	0	$0	Greg Norman
P372D046	Engineering Support for AE Design of RF Cooling Systems (LOE) - Part 1	01-Aug-18 A	28-Sep-18 A	01-Aug-18	28-Sep-18	100%	0	$0	Greg Norman
P372D046B	Engineering Support for AE Design of RF Cooling Systems (LOE) - Continued 65%	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Greg Norman
P372D036	KL06 Preliminary Design Review (PDR) (with 60% AE Review)	07-Nov-18 A	07-Nov-18 A	07-Nov-18	07-Nov-18	100%	0	$0	Greg Norman
P372MS066	KL06 Preliminary Design Review (PDR) (MS)		07-Nov-18 A		07-Nov-18	100%	0	$0	Greg Norman
P372D046C	Engineering Support for AE Design of RF Cooling Systems (LOE) - Continued Part 3	01-Apr-19 A	30-Apr-19 A	01-Apr-19	30-Apr-19	100%	0	$0	Greg Norman
P372D041	KL06 Final Design Review (FDR)	10-May-19 A	10-May-19 A	10-May-19	10-May-19	100%	0	$0	Greg Norman
P372MS076	KL06 Final Design Review (FDR) Complete (MS)		10-May-19 A		10-May-19	100%	0	$0	Greg Norman
P372D001	Eng Support of RF Cooling Klystron Gallery Contstruction (LOE)	14-Jan-20 A	31-Mar-20 A	14-Jan-20	31-Mar-20	100%	0	$0	Greg Norman
P372D001a	Eng Support of RF Cooling Klystron Gallery Contstruction (LOE) (Apr20- Oct20)	01-Apr-20 A	30-Oct-20 A	01-Apr-20	30-Oct-20	100%	0	$0	Greg Norman
P372D001b	Eng Support of RF Cooling Klystron Gallery Contstruction FY21 (LOE) (Nov20 - Feb20)	02-Nov-20 A	04-Feb-21 A	02-Nov-20	04-Feb-21	100%	0	$66,149	Greg Norman
P372D46	Eng Support of RF Cooling T&M Utilities Installation FY21 (LOE) (Feb21 - Sep21)	05-Feb-21 A	30-Sep-21	05-Feb-21	30-Sep-21	48.19%	86	$38,877	Greg Norman
P372D56	Eng Support of RF Cooling T&M Utilities Installation FY22 (LOE) (Oct21 - Mar22)	01-Oct-21	31-Mar-22	01-Oct-21	31-Mar-22	0%	120	$30,223	Greg Norman
P.03.07.02.04	Installation - Water Utilities - New Cold Linac SCL RF Cooling System (KL-06) - (NEP37240)	23-Apr-21 A	12-Oct-22	16-Apr-21	12-Oct-22		341	$776,974	
P372MS390	Installation and successful functional testing of KL-06 deionized water system complete (MS)		12-Oct-22		12-Oct-22	0%	0	$0	Greg Norman
P.03.07.02.04.01	Phase 1 Installation	28-May-21 A	11-Mar-22	16-Apr-21	27-Jan-22		192	$296,563	
P372I770	Install Cooling Tie-Ins to Loads (30C through 32D) (Phase 1)	28-May-21 A	01-Sep-21	16-Apr-21	07-Jul-21	31%	66	$132,225	Greg Norman
P372I131	Install Cooling Tie-Ins to Circulators (30C through 32D) (Phase 1)	19-Aug-21	01-Sep-21	16-Jul-21	29-Jul-21	0%	10	$34,674	Greg Norman
P372I360	Install SCR Cooling Tie-in's (SCL-MOD-30)	24-Aug-21	30-Aug-21	25-Aug-21	31-Aug-21	0%	5	$1,670	Greg Norman
P372I320	Install HVCM Cooling Tie-in's (SCL-MOD-30)	09-Nov-21	22-Nov-21	12-Oct-21	25-Oct-21	0%	10	$17,810	Greg Norman
P372I800	Install TRCC Carts (XMTR-30 & 31)	12-Jan-22	21-Jan-22	11-Nov-21	19-Nov-21	0%	7	$15,523	Greg Norman
P372I830	Re-start KL-06 DI Water Cooling System	24-Jan-22	11-Feb-22	22-Nov-21	14-Dec-21	0%	15	$5,164	Greg Norman
P372I840	KL-06 Cooling System Controls Functional Testing	24-Jan-22	04-Feb-22	22-Nov-21	07-Dec-21	0%	10	$20,169	Greg Norman
P372I740	Install Cooling Tie-Ins to Klystrons (30A through 32D) (Phase 1)	07-Feb-22	04-Mar-22	14-Dec-21	20-Jan-22	0%	20	$53,774	Greg Norman
P372I196	System Testing and Checkout/Balancing (TRCC 31 & 30)	07-Mar-22	11-Mar-22	21-Jan-22	27-Jan-22	0%	5	$15,555	Greg Norman
P372MS016	Installation of Phase 1 Piping Complete (MS)		11-Mar-22		27-Jan-22	0%	0	$0	Greg Norman
P.03.07.02.04.02	Phase 2 Installation	31-Aug-21	09-Aug-22	20-Jul-21	09-Aug-22		232	$274,379	
P372I780	Install Cooling Tie-Ins to Loads (28B through 30B) (Phase 2)	31-Aug-21	19-Nov-21	20-Jul-21	08-Oct-21	0%	58	$134,414	Greg Norman
P372I301	Install Cooling Tie-Ins to Circulators (28B through 30B) (Phase 2)	08-Nov-21	19-Nov-21	27-Sep-21	08-Oct-21	0%	10	$35,589	Greg Norman
P372I370	Install SCR Cooling Tie-in's (SCL-MOD-28)	03-Jan-22	07-Jan-22	03-Jan-22	07-Jan-22	0%	5	$1,714	Greg Norman
P372I810	Install TRCC Carts (XMTR-28 & 27)	25-Mar-22	11-Apr-22	02-Mar-22	17-Mar-22	0%	12	$15,523	Greg Norman



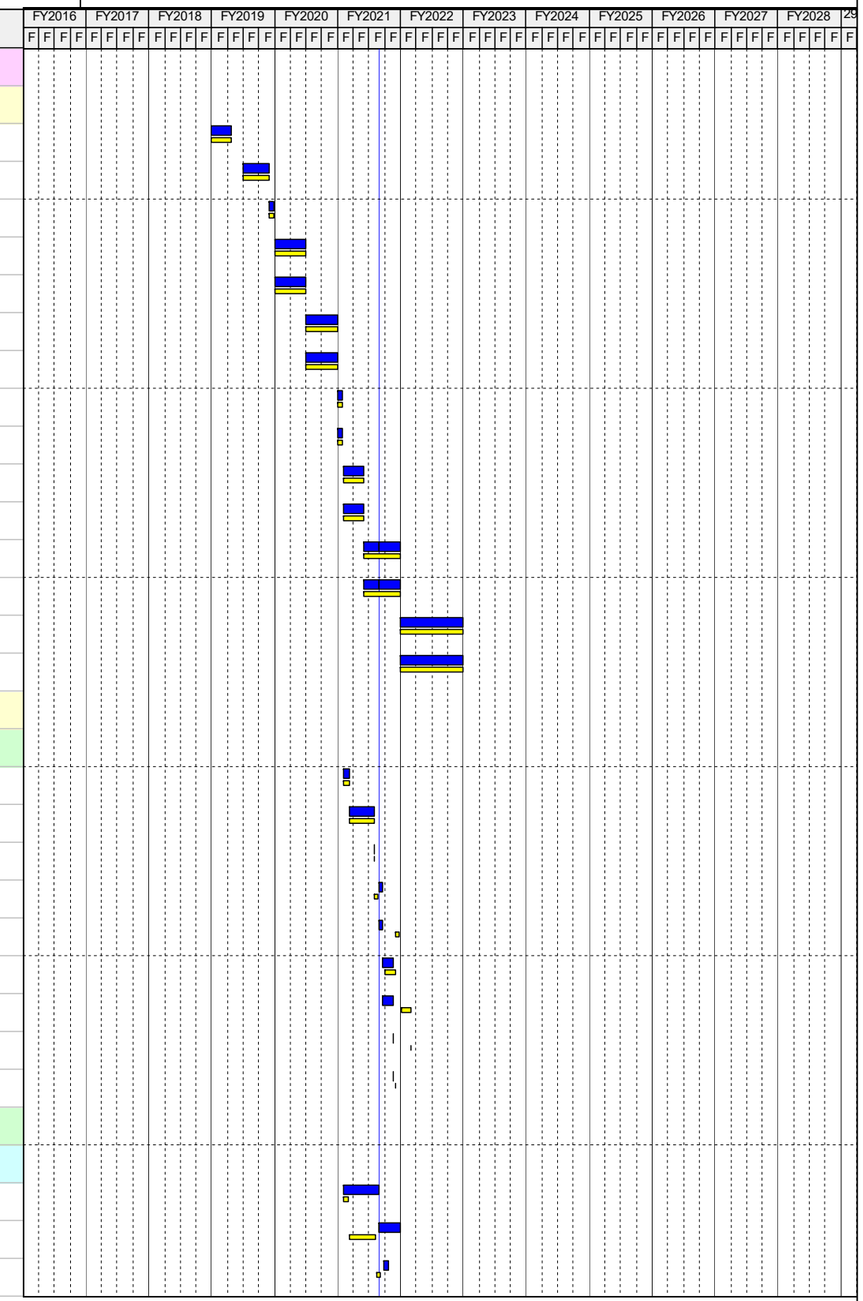
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P372I330	Install HVCM Cooling Tie-in's (SCL-MOD-28)	18-Apr-22	29-Apr-22	01-Mar-22	14-Mar-22	0%	10	$17,810	Greg Norman
P372I750	Install Cooling Tie-Ins to Klystrons (27A through 29D) (Phase 2)	06-Jul-22	02-Aug-22	06-Jul-22	02-Aug-22	0%	20	$53,774	Greg Norman
P372I216	System Testing and Checkout/Balancing (TRCC 28 & 27)	03-Aug-22	09-Aug-22	03-Aug-22	09-Aug-22	0%	5	$15,555	Greg Norman
P372MS021	Installation of Phase 2 Piping Complete (MS)		09-Aug-22		09-Aug-22	0%	0	$0	Greg Norman
P.03.07.02.04.03	Phase 3 Installation	03-Dec-21	12-Oct-22	20-Oct-21	12-Oct-22		212	$117,887	
P372I790	Install Cooling Tie-Ins to Loads (25A through 28A) (Phase 3)	03-Dec-21	03-Mar-22	20-Oct-21	20-Jan-22	0%	57	$45,128	Greg Norman
P372I380	Install SCR Cooling Tie-in's (SCL-MOD-25)	09-Mar-22	15-Mar-22	26-Jan-22	01-Feb-22	0%	5	$1,714	Greg Norman
P372I306	Install Cooling Tie-Ins to Circulators (25A through 28A) (Phase 3)	31-Mar-22	13-Apr-22	14-Apr-22	28-Apr-22	0%	10	$11,863	Greg Norman
P372I820	Install TRCC Cart (XMTR-25)	22-Apr-22	29-Apr-22	13-Apr-22	21-Apr-22	0%	6	$7,761	Greg Norman
P372I760	Install Cooling Tie-Ins to Klystrons (25A through 25D)	08-Sep-22	05-Oct-22	08-Sep-22	05-Oct-22	0%	20	$17,531	Greg Norman
P372I340	Install HVCM Cooling Tie-in's (SCL-MOD-25)	12-Sep-22	23-Sep-22	12-Sep-22	23-Sep-22	0%	10	$17,810	Greg Norman
P372I226	System Testing and Checkout/Balancing (TRCC 25)	06-Oct-22	12-Oct-22	06-Oct-22	12-Oct-22	0%	5	$16,080	Greg Norman
P372MS026	Installation of Phase 3 Piping Complete (MS)		12-Oct-22		12-Oct-22	0%	0	$0	Greg Norman
P.03.07.02.04.04	Install UV Sterilizer	30-Jun-21	29-Jul-21	30-Jun-21	29-Jul-21		21	$11,970	
P372I845	Receive UV Sterilizer (No cost)	30-Jun-21*	30-Jun-21	30-Jun-21	30-Jun-21	0%	1	$0	Greg Norman
P372I850	Modify Unistrut and mount UV Sterilizer	01-Jul-21	15-Jul-21	01-Jul-21	15-Jul-21	0%	10	$1,186	Greg Norman
P372I860	Fabricate and install pipe spools	16-Jul-21	22-Jul-21	16-Jul-21	22-Jul-21	0%	5	$5,500	Greg Norman
P372I870	Install conduit & wiring to PLC cabinet	16-Jul-21	29-Jul-21	16-Jul-21	29-Jul-21	0%	10	$5,284	Greg Norman
P.03.07.02.04.05	Install HTW header thermal expansion compensators	03-May-21 A	14-Jun-21	03-May-21	22-Jun-21		10	$17,781	
P372I880	Procure and Recieve GFE Materials: Thermal Expansion Compensators	03-May-21 A	28-May-21 A	03-May-21	08-Jun-21	100%	0	$3,780	Greg Norman
P372I890	Modify piping and install compensators	01-Jun-21	14-Jun-21	09-Jun-21	22-Jun-21	0%	10	$14,001	Greg Norman
P.03.07.02.04.06	Flush KL-06 DI water system	23-Apr-21 A	13-Jul-21	23-Apr-21	15-Jun-21		30	$58,393	
P372I920	Procure and Recieve Materials for Flushing	23-Apr-21 A	24-May-21 A	23-Apr-21	03-May-21	100%	0	$20,822	Greg Norman
P372I930	Flushing, Draining, and Drying Labor and Equipment Rental	25-May-21 A	14-Jun-21	04-May-21	17-May-21	5%	10	$17,747	Greg Norman
P372I950	Paint 8" S&R header in KL06 and HSB	15-Jun-21	28-Jun-21	18-May-21	01-Jun-21	0%	10	$4,454	Greg Norman
P372I960	Labor & Matl's for 10" DI Header Sway Brace and 8" cooling water piping Sway Brace	29-Jun-21	13-Jul-21	02-Jun-21	15-Jun-21	0%	10	$15,370	Greg Norman
P.03.07.03	Water Utilities - Modify Existing RFQ/DTL RF Cooling System (KL-04)	15-Oct-18 A	12-Apr-23	15-Oct-18	12-Apr-23		460	$547,197	
P.03.07.03.02	Design - Water Utilities - Modify Existing RFQ/DTL RF Cooling System (KL-04) - (NEP37320)	15-Oct-18 A	11-Nov-21	15-Oct-18	16-Sep-21		60	$14,020	
P373D1	Engineering Preliminary design to size equipment upgrades for KL-04 cooling system	15-Oct-18 A	26-Dec-18 A	15-Oct-18	26-Dec-18	100%	0	$0	Greg Norman
P373D11	KL04 Preliminary Design Review (PDR)	02-Jan-19 A	02-Jan-19 A	02-Jan-19	02-Jan-19	100%	0	$0	Greg Norman
P373D31	Engineering Final design to size equipment upgrades for KL-04 cooling system	02-Jan-19 A	29-Mar-19 A	02-Jan-19	29-Mar-19	100%	0	$0	Greg Norman
P373MS003	KL04 Preliminary Design Review (PDR) Complete (MS)		02-Jan-19 A		02-Jan-19	100%	0	$0	Greg Norman
P373D31B	Engineering Final design to size equipment upgrades for KL-04 cooling system - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Greg Norman



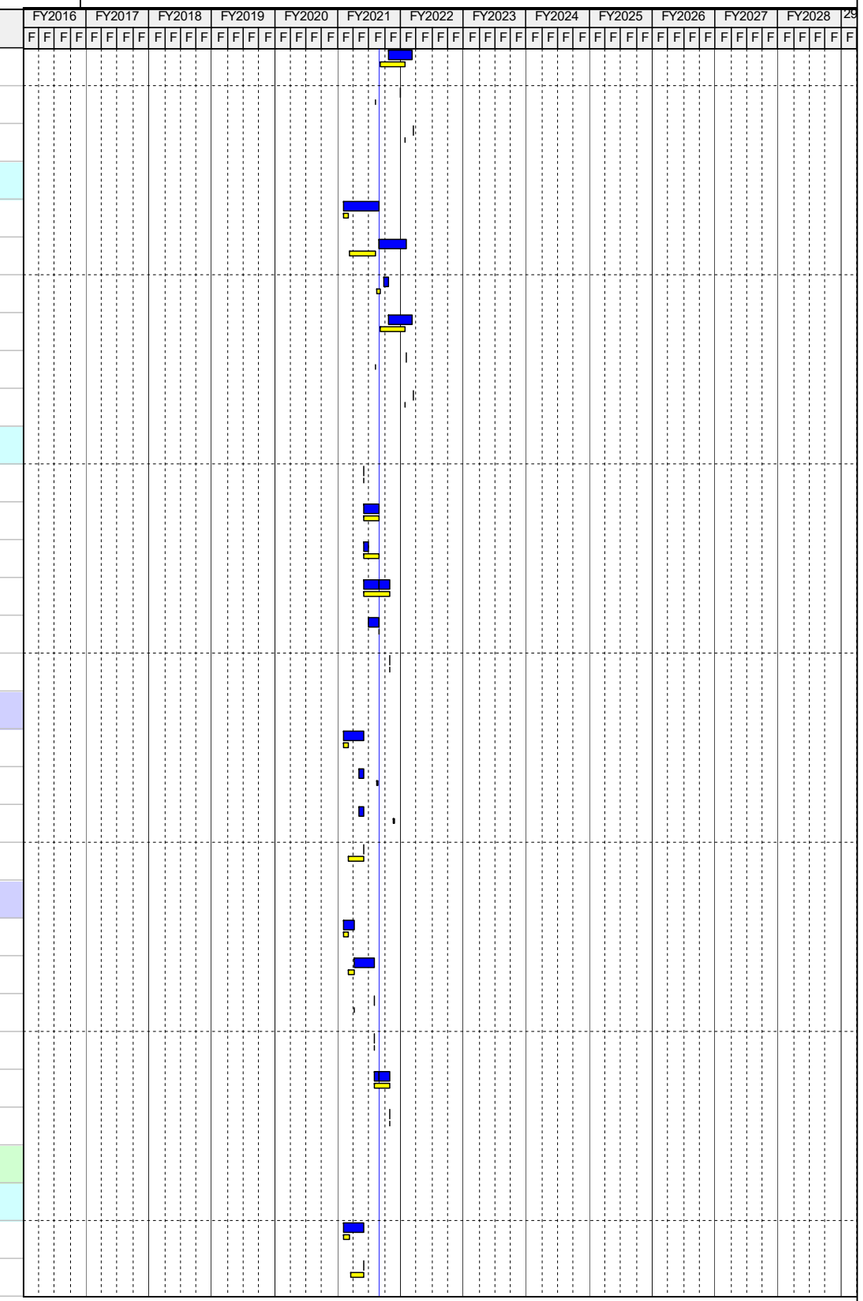
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P373D31C	Engineering Final design to size equipment upgrades for KL-04 cooling system - Continued 2	03-Sep-19 A	23-Sep-19 A	03-Sep-19	23-Sep-19	100%	0	$0	Greg Norman
P373D21	KL04 Final Design Review (FDR)	24-Sep-19 A	24-Sep-19 A	24-Sep-19	24-Sep-19	100%	0	$0	Greg Norman
P373MS005	KL04 Final Design Review (FDR) Complete (MS)		24-Sep-19 A		24-Sep-19	100%	0	$0	Greg Norman
P373D41	Prepare Designs for Procurement	03-Aug-20 A	31-Aug-20 A	03-Aug-20	31-Aug-20	100%	0	$0	Greg Norman
P373D51	Create fab drawings for 3.0 MW klystron piping	19-Aug-21	11-Nov-21	23-Jun-21	16-Sep-21	0%	60	$14,020	Greg Norman
P.03.07.03.03 Procure/Fab - Water Utilities - Modify Existing RFQ/DTL RF Cooling System (KL-04) - (NEP373		29-Mar-21 A	15-Sep-22	29-Mar-21	15-Sep-22		322	$298,392	
P373P21	Procure new pumps, motors, and bases for KL-04 (GFE)	29-Mar-21 A	19-Apr-21 A	29-Mar-21	19-Apr-21	100%	0	$462	Greg Norman
P373P76	Procure and Receive new Breaker, MCC, and VFD for KL-04 (GFE)	29-Mar-21 A	25-Jun-21	29-Mar-21	17-May-21	15%	19	$38,332	Greg Norman
P373P98	Procure and Receive new VFD Control Wiring & Hardware for KL-04 (GFE)	29-Mar-21 A	27-Aug-21	29-Mar-21	17-May-21	10%	63	$2,006	Greg Norman
P373P31	Fabricate new pumps, motors, and bases for KL-04 (GFE)	20-Apr-21 A	14-Jul-21	20-Apr-21	14-Jul-21	40%	31	$0	Greg Norman
P373P13	Award SRO for Installation of KL-04 Upgrade	30-Jun-21*		30-Jun-21		0%	0	$0	Greg Norman
P373P16	Procure and Receive Mechanical Materials (Via SRO) for installation of upgrade equipment on KL-04	01-Jul-21	24-Sep-21	01-Jul-21	24-Sep-21	0%	60	$42,594	Greg Norman
P373P46	Procure and Receive Electrical Materials (Conduit & Wiring) (Via SRO) for KL-04	01-Jul-21	24-Sep-21	01-Jul-21	24-Sep-21	0%	60	$27,231	Greg Norman
P373P41	Receive new pumps, motors, and bases for KL-04 (GFE)	15-Jul-21	15-Jul-21	15-Jul-21	15-Jul-21	0%	1	$120,678	Greg Norman
P373P33	Award SRO for Swapping Klystron Piping for DTL-3, DTL-4, and DTL-5	18-Apr-22*		18-Apr-22		0%	0	$0	Greg Norman
P373P36	Procure and Receive Materials (Via SRO) for swapping klystrons DTL-3, DTL-4 and DTL-5 Piping (KL-04)	19-Apr-22	21-Jun-22	19-Apr-22	21-Jun-22	0%	45	$36,038	Greg Norman
P373P39	Fabricate piping (Via SRO) for swapping Klystron Piping DTL-3, DTL-4 and DTL-5 (KL-04)	22-Jun-22	15-Sep-22	22-Jun-22	15-Sep-22	0%	60	$31,050	Greg Norman
P.03.07.03.04 Installation - Water Utilities - Modify Existing RFQ/DTL RF Cooling System (KL-04)		27-Sep-21	12-Apr-23	27-Sep-21	12-Apr-23		378	$234,785	
P373I925	Prefabricate Pump Inlet and Discharge Piping	27-Sep-21	14-Oct-21	27-Sep-21	14-Oct-21	0%	14	$9,561	Greg Norman
P373I26	Controls Support for Upgrade of Equipment on KL-04	22-Oct-21	03-Dec-21	22-Oct-21	03-Dec-21	0%	29	$11,655	Greg Norman
P373I900	Perform Electrical Demolition	22-Oct-21	29-Oct-21	22-Oct-21	29-Oct-21	0%	6	$10,635	Greg Norman
P373I905	Perform Mechanical Demolition	22-Oct-21	29-Oct-21	22-Oct-21	29-Oct-21	0%	6	$14,035	Greg Norman
P373I75	Electrical upgrade VFD Controls & Wiring	01-Nov-21	05-Nov-21	01-Nov-21	05-Nov-21	0%	5	$17,774	Greg Norman
P373I910	Patch Remaining Steel Pump Deck	01-Nov-21	01-Nov-21	01-Nov-21	01-Nov-21	0%	1	$1,490	Greg Norman
P373I935	Install new electrical equipment, conduit and wiring	01-Nov-21	06-Dec-21	01-Nov-21	06-Dec-21	0%	24	$29,591	Greg Norman
P373I915	Support Existing Pump Discharge Piping from Roof	02-Nov-21	05-Nov-21	02-Nov-21	05-Nov-21	0%	4	$11,861	Greg Norman
P373I920	Form and Pour new concrete pump foundations	08-Nov-21	29-Nov-21	08-Nov-21	29-Nov-21	0%	14	$20,369	Greg Norman
P373I930	Install new pump bases, pumps/motors, and piping	30-Nov-21	16-Dec-21	30-Nov-21	16-Dec-21	0%	13	$45,954	Greg Norman
P373I61	Mechanical System test and checkout on KL-04	17-Dec-21	21-Dec-21	17-Dec-21	21-Dec-21	0%	3	$9,073	Greg Norman
P373I81	Electrical System test and checkout on KL-04	17-Dec-21	21-Dec-21	17-Dec-21	21-Dec-21	0%	3	$9,582	Greg Norman
P373I940	Perform Pump Start-UP & Commissioning Activities	17-Dec-21	21-Dec-21	17-Dec-21	21-Dec-21	0%	3	$1,490	Greg Norman
P373MS002	Modification of KL-04 complete (MS)		21-Dec-21		21-Dec-21	0%	0	$0	Greg Norman
P373I41	Labor to swap out klystron DTL-3, DTL-4 and -5 piping (KL-04)	22-Feb-23	12-Apr-23	22-Feb-23	12-Apr-23	0%	35	$41,715	Greg Norman



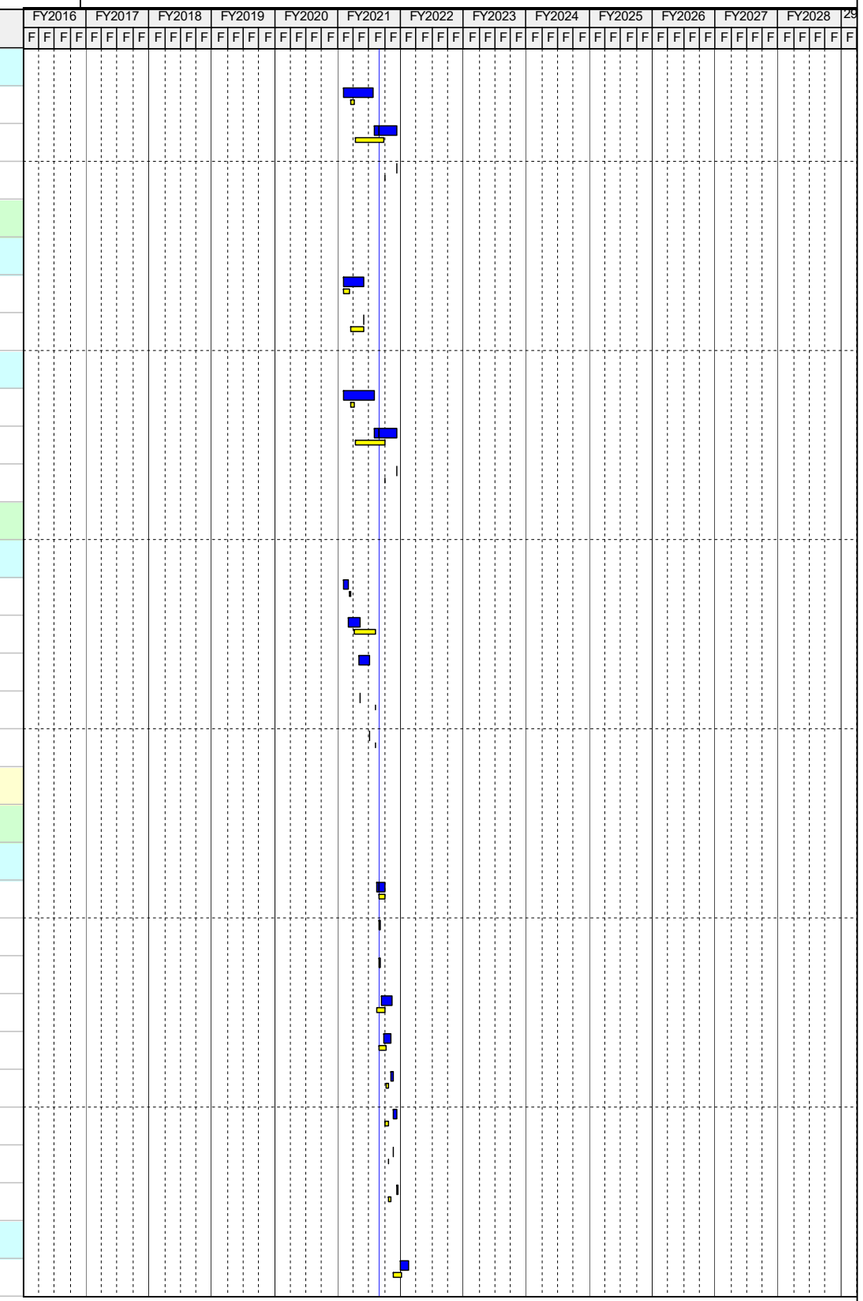
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P.03.07.07	Electrical	01-Oct-18 A	17-May-24	01-Oct-18	17-May-24		733	$3,515,566	
P.03.07.07.02	Design - Electrical - (NEP37720)	01-Oct-18 A	30-Sep-22	01-Oct-18	30-Sep-22		333	$261,178	
P377D001	Elec Designer support for Cable Database and Approved Cable List and (LOE)	01-Oct-18 A	23-Jan-19 A	01-Oct-18	23-Jan-19	100%	0	$0	Greg Norman
P377D01B	Elec Designer support of Cable procurement and installation planning (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Greg Norman
P377D01C	Elec Designer support of Cable procurement and installation planning (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Greg Norman
P377D115	Elec. Integration Engr Support (Cable Database, Rack fabs, procures, installation planning) (FY20) (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Greg Norman
P377D105	Electrical Designer Support (Cable Database, Pull Lists, Installation Drawings) (FY20) (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Greg Norman
P377D115a	Elec. Integration Engr Support (Cable Database, Rack fabs, procures, installation planning) (FY20) (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Greg Norman
P377D105a	Electrical Designer Support (Cable Database, Pull Lists, Installation Drawings) (FY20) (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Greg Norman
P377D125	Elec. Integration Engr Support (Cable Database, Rack fab, proc, installation) (FY21) (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Greg Norman
P377D107	Electrical Designer Support (Cable Database, Pull Lists, Installation Drawings) (FY21) (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Greg Norman
P377D107a	Electrical Designer Support (Cable Database, Pull Lists, Installation Drawings) (FY21) (LOE) Part 2 (Nov20 - Feb21)	02-Nov-20 A	01-Mar-21 A	02-Nov-20	26-Feb-21	100%	0	$62,130	Greg Norman
P377D125a	Elec. Integration Engr Support (Cable Database, Rack fab, proc, installation) (FY21) (LOE) Part 2 (Nov20 - Feb21)	02-Nov-20 A	01-Mar-21 A	02-Nov-20	26-Feb-21	100%	0	$32,948	Greg Norman
P377D125b	Elec. Integration Engr Support (Cable Database, Rack fab, proc, installation) (FY21) (LOE) Part 3 (Mar21 - Sep21)	01-Mar-21 A	30-Sep-21	01-Mar-21	30-Sep-21	42.67%	86	$49,230	Greg Norman
P377D107b	Electrical Designer Support (Cable Database, Pull Lists, Installation Drawings) (FY21) (LOE) Part 3 (Mar21 - Sep21)	01-Mar-21 A	30-Sep-21	01-Mar-21	30-Sep-21	42.67%	86	$30,276	Greg Norman
P377D135	Elec. Integration Engr Support (Cable Database, Rack fabrications, procurements, installation) (FY22) (LOE)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$64,939	Greg Norman
P377D109	Electrical Designer Support (Cable Database, Pull Lists, Installation Drawings) (FY22) (LOE) (Octr21 - Sep22)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$21,656	Greg Norman
P.03.07.07.03	Procure/Fab - Electrical - (NEP37731)	02-Nov-20 A	13-Dec-21	02-Nov-20	03-Dec-21		136	$947,489	
P.03.07.07.03.02	SCL HPRF and LLRF Electrical Procurement	03-Nov-20 A	18-Aug-21	03-Nov-20	03-Dec-21		56	$82,521	
P377P81	Procure 6 LLRF Racks (Phase 1)	03-Nov-20 A	10-Dec-20 A	03-Nov-20	10-Dec-20	100%	0	$579	Greg Norman
P377P82	Fabrication of 7 LLRF Racks (Phase 1)	11-Dec-20 A	29-Apr-21 A	11-Dec-20	29-Apr-21	100%	0	$0	Greg Norman
P377P84	Receive 7 LLRF Racks (Phase 1)	30-Apr-21 A	30-Apr-21 A	30-Apr-21	30-Apr-21	100%	0	$21,464	Greg Norman
P377P81a	Procure 6 LLRF Racks (Phase 2)	01-Jun-21*	21-Jun-21	03-May-21	21-May-21	0%	15	$462	Greg Norman
P377P81b	Procure 6 LLRF Racks (Phase 3)	01-Jun-21	21-Jun-21	01-Sep-21	22-Sep-21	0%	15	$462	Greg Norman
P377P85	Fabrication of 6 LLRF Racks (Phase 2)	22-Jun-21	17-Aug-21	06-Jul-21	30-Aug-21	0%	40	$0	Greg Norman
P377P87	Fabrication of 6 LLRF Racks (Phase 3)	22-Jun-21	17-Aug-21	06-Oct-21	02-Dec-21	0%	40	$0	Greg Norman
P377P91	Receive 6 LLRF Racks (Phase 3)	18-Aug-21	18-Aug-21	03-Dec-21	03-Dec-21	0%	1	$29,777	Greg Norman
P377P86	Receive 6 LLRF Racks (Phase 2)	18-Aug-21	18-Aug-21	31-Aug-21	31-Aug-21	0%	1	$29,777	Greg Norman
P.03.07.07.03.03	Cryomodule Controls Cabling Procurement	02-Nov-20 A	13-Dec-21	02-Nov-20	26-Oct-21		136	$792,549	
P.03.07.07.03.03.01	Marshalling Cabinet	02-Nov-20 A	13-Dec-21	02-Nov-20	26-Oct-21		136	$292,643	
P377P304	Procure 1st Marshalling Cabinet (Phase 1) (inc. PLC to MP Connectors)	02-Nov-20 A	26-May-21 A	02-Nov-20	04-Dec-20	100%	0	$507	Greg Norman
P377P308	Fabricate 1st Marshalling Cabinet (Phase 1) (inc. PLC to MP Connectors)	27-May-21 A	27-Sep-21	07-Dec-20	11-May-21	3%	83	$0	Greg Norman
P377P3064	Procure 2nd Marshalling Cabinet (Phase 2) (inc. PLC to MP Connectors)	29-Jun-21	20-Jul-21	13-May-21	03-Jun-21	0%	15	$462	Greg Norman



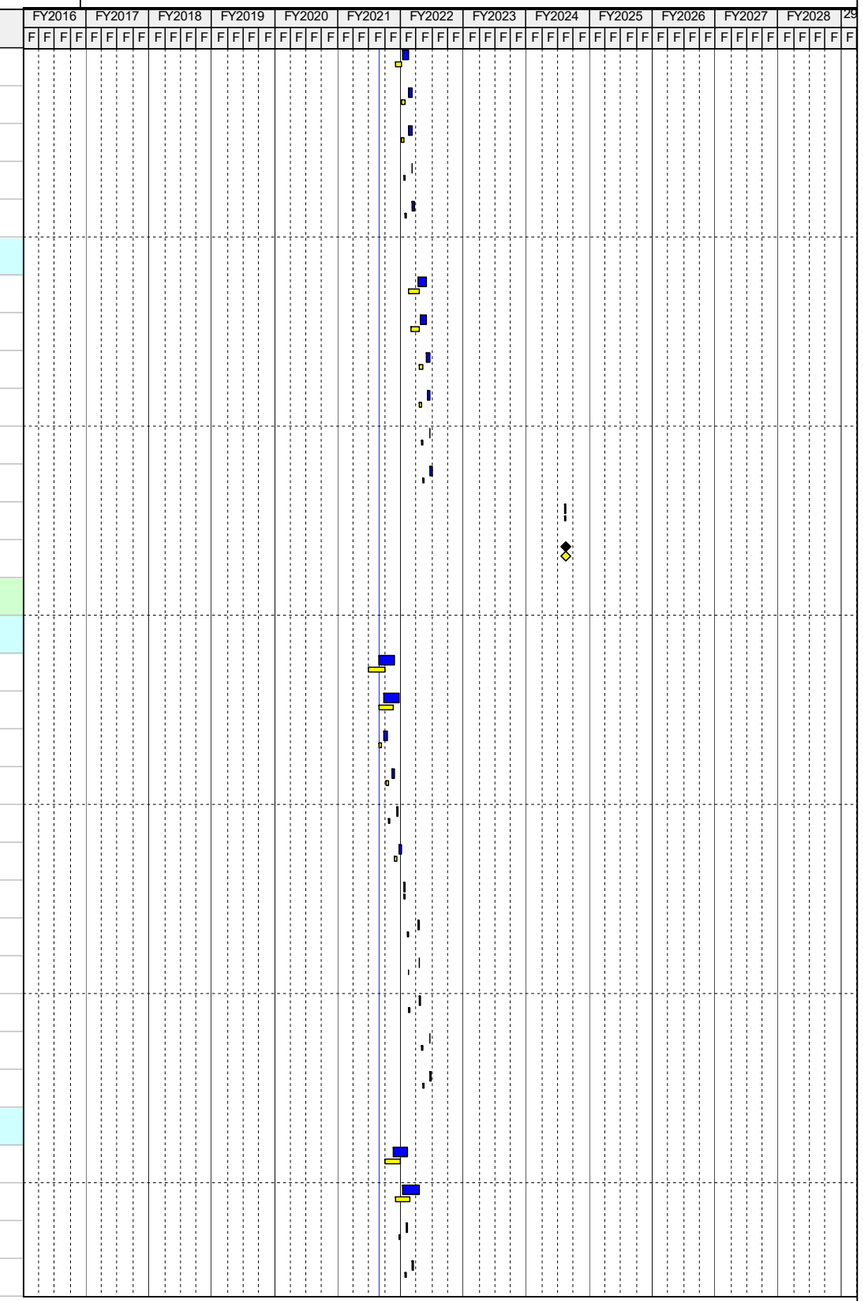
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P377P114	Fabricate 2nd Marshalling Cabinet (Phase 2) (inc. PLC to MP Connectors)	21-Jul-21	10-Dec-21	04-Jun-21	25-Oct-21	0%	100	$0	Greg Norman
P377P309	Receive 1st Marshalling Cabinet (Phase 1) (inc. PLC to MP Connectors)	28-Sep-21	28-Sep-21	12-May-21	12-May-21	0%	1	$143,763	Greg Norman
P377P3084	Receive 2nd Marshalling Cabinet (Phase 2) (inc. PLC to MP Connectors)	13-Dec-21	13-Dec-21	26-Oct-21	26-Oct-21	0%	1	$147,910	Greg Norman
P.03.07.07.03.03.02	Cryo/Tuner Racks	02-Nov-20 A	13-Dec-21	02-Nov-20	26-Oct-21		136	$178,020	
P377P3014	Procure 1st set of 3 Cryo/Tuner Racks (Phase 1)	02-Nov-20 A	26-May-21 A	02-Nov-20	04-Dec-20	100%	0	$507	Greg Norman
P377P3094	Fabricate 1st set of 3 Cryo/Tuner Racks (Phase 1)	27-May-21 A	01-Nov-21	07-Dec-20	11-May-21	0%	108	$0	Greg Norman
P377P3104	Procure 2nd set of 3 Cryo/Tuner Racks (Phase 2)	29-Jun-21	20-Jul-21	13-May-21	03-Jun-21	0%	15	$462	Greg Norman
P377P3114	Fabricate 2nd set of 3 Cryo/Tuner Racks (Phase 2)	21-Jul-21	10-Dec-21	04-Jun-21	25-Oct-21	0%	100	$0	Greg Norman
P377P310	Receive 1st set of 3 Cryo/Tuner Racks for Row 50 (Phase 1)	02-Nov-21	02-Nov-21	12-May-21	12-May-21	0%	1	$88,525	Greg Norman
P377P318	Receive 2nd set of 3 Cryo/Tuner Racks for Row ## (Phase 2)	13-Dec-21	13-Dec-21	26-Oct-21	26-Oct-21	0%	1	$88,525	Greg Norman
P.03.07.07.03.03.03	Cables	02-Nov-20 A	30-Jul-21	02-Nov-20	25-Aug-21		43	$321,886	
P377P174	Receive Batch 1 RF Cables (Cryo Controls, Vacuum Controls, etc)	01-Mar-21 A	01-Mar-21 A	01-Mar-21	01-Mar-21	100%	0	$50,980	Greg Norman
P377P186	Receive Batch 2 RF Cables (Cryo Controls, Vacuum Controls, etc) (PO 4801289777)	02-Mar-21 A	27-May-21 A	02-Mar-21	27-May-21	100%	0	$30,264	Greg Norman
P377P1874	Fabrication Batch 3 RF Cables (Cryo Controls, Vacuum Controls, etc)	02-Mar-21 A	30-Mar-21 A	02-Mar-21	28-May-21	100%	0	$0	Greg Norman
P377P1884	Fabrication Batch 4 RF Cables (Cryo Controls, Vacuum Controls, etc)	02-Mar-21 A	29-Jul-21	02-Mar-21	29-Jul-21	40%	42	$0	Greg Norman
P377P187	Receive Batch 3 RF Cables (Cryo Controls, Vacuum Controls, etc)	31-Mar-21 A	01-Jun-21	01-Jun-21	01-Jun-21	65%	1	$162,639	Greg Norman
P377P188	Receive Batch 4 RF Cables (Cryo Controls, Vacuum Controls, etc)	30-Jul-21	30-Jul-21	30-Jul-21	30-Jul-21	0%	1	$34,320	Greg Norman
P.03.07.07.03.03.03.01	Linac Cryomodule Controls Cables	02-Nov-20 A	01-Mar-21 A	02-Nov-20	25-Aug-21		0	$294	
P377P186	Procure Linac Cryomodule Controls Cables (Phase 1) (Does not incl. T-M)	02-Nov-20 A	26-Feb-21 A	02-Nov-20	30-Nov-20	100%	0	$109	Greg Norman
P377P187	Procure Linac Cryomodule Controls Cables (Phase 2) (Does not incl. T-M)	01-Feb-21 A	26-Feb-21 A	18-May-21	24-May-21	100%	0	$92	Greg Norman
P377P188	Procure Linac Cryomodule Controls Cables (Phase 3) (Does not incl. T-M)	01-Feb-21 A	26-Feb-21 A	19-Aug-21	25-Aug-21	100%	0	$92	Greg Norman
P377P186	Fabrication of Linac Cryomodule Controls Cables (Phase 1) (Does not incl. T-M, reduce duration?)	01-Mar-21 A	01-Mar-21 A	01-Dec-20	01-Mar-21	100%	0	$0	Greg Norman
P.03.07.07.03.03.03.02	Branch Cables (Pigtails)	02-Nov-20 A	28-Jul-21	02-Nov-20	28-Jul-21		41	$43,389	
P377P322	Procure Outside Fabrication of Branch cables and Connectors (BLI to CM) (All Phases)	02-Nov-20 A	06-Jan-21 A	02-Nov-20	30-Nov-20	100%	0	$116	Greg Norman
P377P324	Fabrication of Branch cables and Connectors (BLI to CM) (All Phases)	07-Jan-21 A	03-May-21 A	01-Dec-20	04-Jan-21	100%	0	$0	Greg Norman
P377P326	Receive Pre-Fabricated Branch cables and Connectors (BLI to CM) (All Phases)	03-May-21 A	03-May-21 A	05-Jan-21	05-Jan-21	100%	0	$12,330	Greg Norman
P377P326	Receive Pre-Fabricated Branch cables and Connectors (Adjustment Activity PCR RF-2021-16)	03-May-21 A	03-May-21 A	03-May-21	03-May-21	100%	0	($12,330)	Greg Norman
P377P326	Fabrication of Pre-Fabricated Branch cables and Connectors	03-May-21 A	27-Jul-21	03-May-21	27-Jul-21	0%	40	$0	Greg Norman
P377P326	Receive Pre-Fabricated Branch cables and Connectors (New PCR RF-2021-16)	28-Jul-21	28-Jul-21	28-Jul-21	28-Jul-21	0%	1	$43,273	Greg Norman
P.03.07.07.03.04	Insulating Vacuum Cabling Procurement	02-Nov-20 A	09-Sep-21	02-Nov-20	30-Jun-21		71	$9,286	
P.03.07.07.03.04.02	Cables	02-Nov-20 A	01-Mar-21 A	02-Nov-20	01-Mar-21		0	$109	
P377P4011	Procure INS Vacuum Cables for all CMs and Systems (inc. HEDP and 2 Large Roughing pumps) (Does not incl. T-M)	02-Nov-20 A	26-Feb-21 A	02-Nov-20	11-Dec-20	100%	0	$109	Greg Norman
P377P4014	Fabricate INS Vac Cables for all CMs and Systems (inc. HEDP & Large Roughing pump) (Does not incl. T-M, reduce dur?)	01-Mar-21 A	01-Mar-21 A	14-Dec-20	01-Mar-21	100%	0	$0	Greg Norman



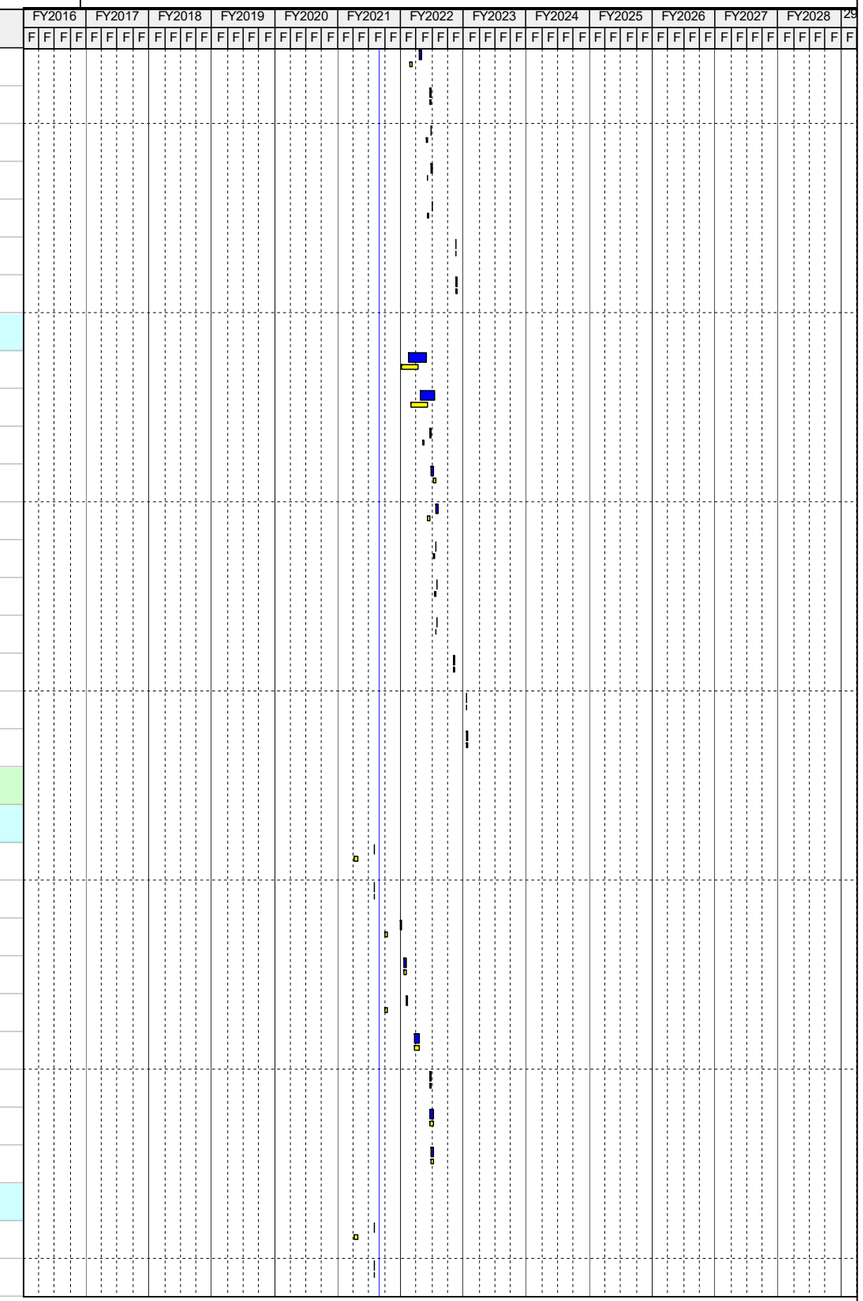
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P.03.07.07.03.04.03	Connectors	02-Nov-20 A	09-Sep-21	14-Dec-20	30-Jun-21		71	$9,177	
P377P4071	Procure INS Vacuum Connectors for all CMs and all Systems	02-Nov-20 A	29-Apr-21 A	14-Dec-20	08-Jan-21	100%	0	$103	Greg Norman
P377P4074	Fabrication of INS Vacuum Connectors for all CMs and all Systems	30-Apr-21 A	08-Sep-21	11-Jan-21	29-Jun-21	0%	70	$0	Greg Norman
P377P408	Receive INS Vacuum Connectors for all CMs and all Systems	09-Sep-21	09-Sep-21	30-Jun-21	30-Jun-21	0%	1	$9,074	Greg Norman
P.03.07.07.03.05	Beamline Vacuum Cabling Procurement	02-Nov-20 A	09-Sep-21	02-Nov-20	01-Jul-21		71	$33,115	
P.03.07.07.03.05.02	Cables	02-Nov-20 A	01-Mar-21 A	02-Nov-20	01-Mar-21		0	$109	
P377P5091	Procure SCL Vacuum Cables for all CMs and Systems (inc. HEDP) (Does not incl. T-M)	02-Nov-20 A	26-Feb-21 A	02-Nov-20	11-Dec-20	100%	0	$109	Greg Norman
P377P5094	Fabrication of SCL Vacuum Cables for all CMs and Systems (inc. HEDP) (Does not incl. T-M, reduce duration?)	01-Mar-21 A	01-Mar-21 A	14-Dec-20	01-Mar-21	100%	0	$0	Greg Norman
P.03.07.07.03.05.03	Connectors	02-Nov-20 A	09-Sep-21	14-Dec-20	01-Jul-21		71	$33,005	
P377P5151	Procure SCL Vacuum Connectors for all CMs and Systems (inc. HEDP)	02-Nov-20 A	29-Apr-21 A	14-Dec-20	08-Jan-21	100%	0	$103	Greg Norman
P377P5154	Fabrication SCL Vacuum Connectors for all CMs and Systems (inc. HEDP)	30-Apr-21 A	08-Sep-21	11-Jan-21	30-Jun-21	0%	70	$0	Greg Norman
P377P516	Receive SCL Vacuum Connectors for all CMs and Systems (inc. HEDP)	09-Sep-21	09-Sep-21	01-Jul-21	01-Jul-21	0%	1	$32,902	Greg Norman
P.03.07.07.03.08	Global Controls Cabling Procurement	02-Nov-20 A	06-Apr-21 A	07-Dec-20	12-May-21		0	$30,019	
P.03.07.07.03.08.01	Racks	02-Nov-20 A	06-Apr-21 A	07-Dec-20	12-May-21		0	$30,019	
P377P1001	Procure 3 communication racks	02-Nov-20 A	30-Nov-20 A	07-Dec-20	18-Dec-20	100%	0	$116	Greg Norman
P377P1004	Fabrication of 3 communication racks	01-Dec-20 A	09-Feb-21 A	04-Jan-21	11-May-21	100%	0	$0	Greg Norman
P377P5174	Fabrication of 3 Diagnostic Racks	01-Feb-21 A	05-Apr-21 A			100%	0	$0	Greg Norman
P377P101	Receive 3 Communication Racks	10-Feb-21 A	10-Feb-21 A	12-May-21	12-May-21	100%	0	$15,811	Greg Norman
P377P5164	Receive 3 Diagnostics Racks	06-Apr-21 A	06-Apr-21 A	12-May-21	12-May-21	100%	0	$14,092	Greg Norman
P.03.07.07.04	Installation - Electrical - (NEP37740)	23-Apr-21 A	17-May-24	06-Jan-21	17-May-24		733	$2,306,899	
P.03.07.07.04.01	General Electrical Installation	17-May-21 A	17-May-24	14-May-21	17-May-24		733	$460,719	
P.03.07.07.04.01.01	Phase 1 Installation	17-May-21 A	16-Sep-21	14-May-21	04-Aug-21		76	$202,274	
P377I975	Klystron Shield Block Mobility Fabrication and Installation	17-May-21 A	30-Jun-21	01-Jun-21	30-Jun-21	70%	22	$87,067	Greg Norman
P377I985	Install Tray over Rack Row 51 (NIB) (subset of P377I266)	01-Jun-21*	07-Jun-21			0%	5	$0	Greg Norman
P377I995	Install initial Racks, Row 51 (NIB) (subset of P377I106)	01-Jun-21*	07-Jun-21			0%	5	$0	Greg Norman
P377I266	Install technical equipment cable tray (Phase 1)	15-Jun-21	16-Aug-21	14-May-21	02-Jul-21	0%	44	$39,616	Greg Norman
P377I271	Install AC Power Cables (Phase 1)	29-Jun-21	05-Aug-21	28-May-21	07-Jul-21	0%	27	$34,742	Greg Norman
P377I461	Terminate AC power cables (phase 1)	06-Aug-21	19-Aug-21	08-Jul-21	21-Jul-21	0%	10	$6,110	Greg Norman
P377I106	Install Equipment Racks (Phase 1)	17-Aug-21	07-Sep-21	06-Jul-21	26-Jul-21	0%	15	$15,642	Greg Norman
P377I471	Turn on AC power to loads (phase 1)	20-Aug-21	23-Aug-21	22-Jul-21	23-Jul-21	0%	2	$3,055	Greg Norman
P377I834	Install Task Lighting Receptacles (Phase 1)	08-Sep-21	16-Sep-21	27-Jul-21	04-Aug-21	0%	7	$16,042	Greg Norman
P.03.07.07.04.01.02	Phase 2 Installation	29-Sep-21	20-Dec-21	17-Aug-21	04-Nov-21		57	$118,030	
P377I520	Install technical equipment cable tray (Phase 2)	29-Sep-21	16-Nov-21	17-Aug-21	05-Oct-21	0%	35	$40,528	Greg Norman



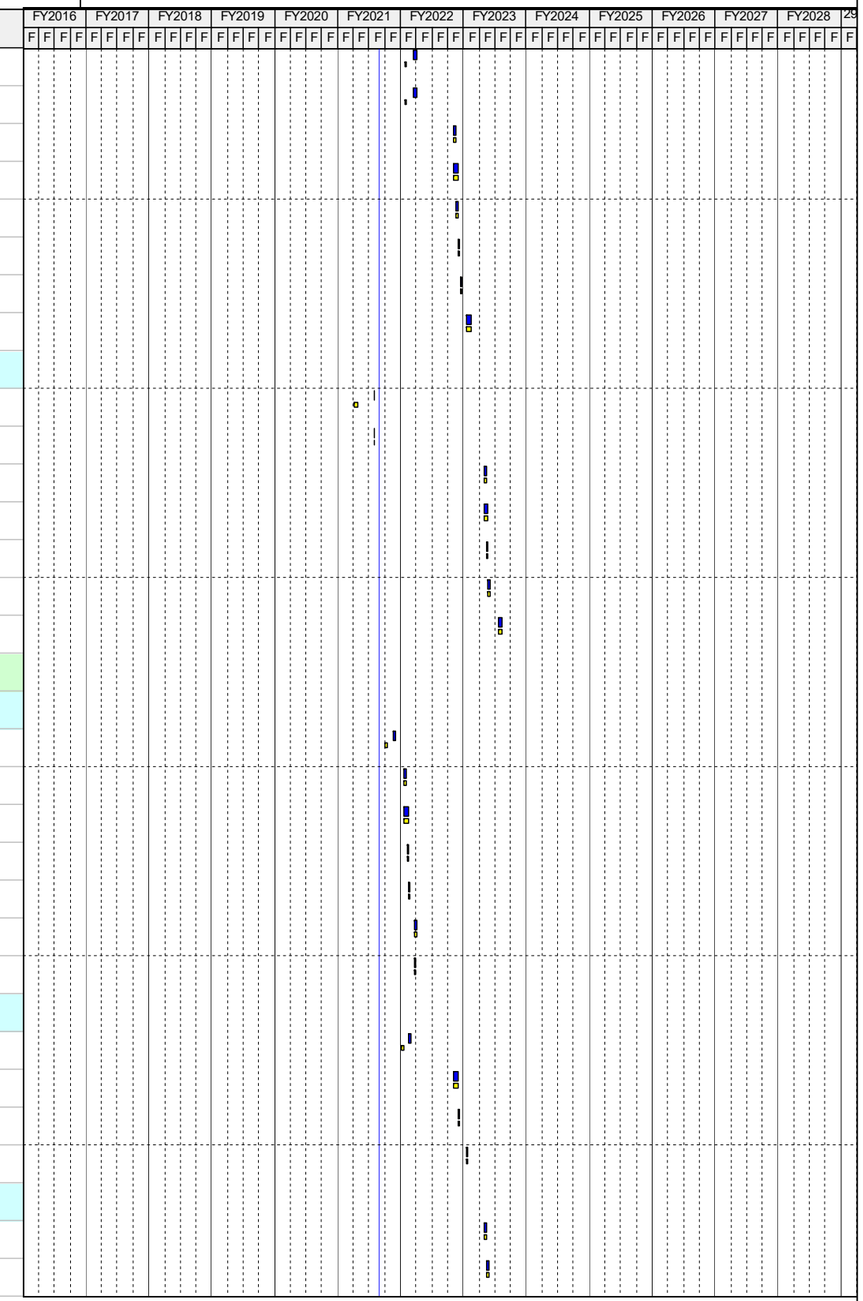
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P377I281	Install AC Power Cables (Phase 2)	13-Oct-21	18-Nov-21	31-Aug-21	07-Oct-21	0%	27	$35,641	Greg Norman
P377I441	Install Equipment Racks (Phase 2)	17-Nov-21	09-Dec-21	06-Oct-21	26-Oct-21	0%	15	$16,015	Greg Norman
P377I540	Terminate AC power cables (phase 2)	19-Nov-21	06-Dec-21	08-Oct-21	21-Oct-21	0%	10	$6,256	Greg Norman
P377I570	Turn on AC power to loads (phase 2)	07-Dec-21	08-Dec-21	22-Oct-21	25-Oct-21	0%	2	$3,128	Greg Norman
P377I844	Install Task Lighting Receptacles (Phase 2)	10-Dec-21	20-Dec-21	27-Oct-21	04-Nov-21	0%	7	$16,462	Greg Norman
P.03.07.07.04.01.03	Phase 3 Installation	11-Jan-22	17-May-24	17-Nov-21	17-May-24		584	$140,414	
P377I530	Install technical equipment cable tray (Phase 3)	11-Jan-22	01-Mar-22	17-Nov-21	18-Jan-22	0%	35	$40,584	Greg Norman
P377I291	Install AC Power Cables (Phase 3)	26-Jan-22	03-Mar-22	03-Dec-21	20-Jan-22	0%	27	$26,579	Greg Norman
P377I451	Install Equipment Racks (Phase 3)	02-Mar-22	22-Mar-22	19-Jan-22	08-Feb-22	0%	15	$18,017	Greg Norman
P377I550	Terminate AC power cables (phase 3)	04-Mar-22	17-Mar-22	21-Jan-22	03-Feb-22	0%	10	$6,256	Greg Norman
P377I560	Turn on AC power to loads (phase 3)	18-Mar-22	21-Mar-22	04-Feb-22	07-Feb-22	0%	2	$3,128	Greg Norman
P377I854	Install Task Lighting Receptacles (Phase 3)	23-Mar-22	31-Mar-22	09-Feb-22	17-Feb-22	0%	7	$16,462	Greg Norman
P377I864	Install Permanent Fire Stopping of new WG Chases in tunnel (Subcontractor)	13-May-24	17-May-24	13-May-24	17-May-24	0%	5	$29,389	Greg Norman
P377I455	Installation of chase inserts and firestop/shield blocks complete (MS)		17-May-24		17-May-24	0%	0	$0	Greg Norman
P.03.07.07.04.02	SCL HPRF and LLRF Electrical Installation	28-May-21 A	26-Oct-22	01-Apr-21	26-Oct-22		351	$782,380	
P.03.07.07.04.02.01	Phase 1 Installation	28-May-21 A	28-Mar-22	01-Apr-21	11-Feb-22		203	$276,925	
P377i200	Install waveguide and loads for klystrons 30C through 32D (Phase 1)	28-May-21 A	26-Aug-21	01-Apr-21	30-Jun-21	0%	62	$109,202	Greg Norman
P377i202	Install LLRF, WG coupler, and XMTR Cabling (Inc. int. and ext.) for klystrons 30C through 32D (Phase 1)	29-Jun-21	22-Sep-21	28-May-21	23-Aug-21	0%	60	$120,153	Greg Norman
P377I465	Install Local Oscillator (LO) distribution cabling along the north wall for feeding LLRF LO Distribution amplifiers	29-Jun-21	13-Jul-21	28-May-21	11-Jun-21	0%	10	$2,444	Greg Norman
P377i955	Install circulators for klystrons 30C through 32D (Phase 1)	13-Aug-21	26-Aug-21	12-Jul-21	23-Jul-21	0%	10	$7,332	Greg Norman
P377i212	Install Conduit for HV Cables - SCL-MOD-30	08-Sep-21	13-Sep-21	27-Jul-21	30-Jul-21	0%	4	$4,888	Greg Norman
P377i214	Terminate Connections for klystrons 30C through 32D (Phase 1)	23-Sep-21	06-Oct-21	24-Aug-21	07-Sep-21	0%	10	$9,869	Greg Norman
P377I510	Cable pulls from the klystron gallery LLRF racks to the reference line boxes down in the tunnel (Phase 1)	22-Oct-21	28-Oct-21	22-Oct-21	28-Oct-21	0%	5	$2,502	Greg Norman
P377i210	Set XMTR-30 and XMTR-31 Racks	12-Jan-22	18-Jan-22	11-Nov-21	16-Nov-21	0%	4	$6,133	Greg Norman
P377i885	Terminate AC Power Cables to XMTR-30 and XMTR-31	19-Jan-22	20-Jan-22	17-Nov-21	18-Nov-21	0%	2	$4,222	Greg Norman
P377i895	Turn on AC Power to XMTR-30 and XMTR-31	21-Jan-22	24-Jan-22	19-Nov-21	22-Nov-21	0%	2	$4,222	Greg Norman
P377i234	Install HV Cables (XMTR-30 and 31) - SCL-MOD-30	21-Mar-22	22-Mar-22	04-Feb-22	07-Feb-22	0%	2	$2,240	Greg Norman
P377i238	Terminate HV Cables - SCL-MOD-30	23-Mar-22	28-Mar-22	08-Feb-22	11-Feb-22	0%	4	$3,717	Greg Norman
P.03.07.07.04.02.02	Phase 2 Installation	17-Aug-21	23-Aug-22	06-Jul-21	23-Aug-22		252	$253,499	
P377i208	Install waveguide and loads for klystrons 28B through 30B (Phase 2)	17-Aug-21	12-Nov-21	06-Jul-21	01-Oct-21	0%	63	$100,122	Greg Norman
P377i218	Install LLRF, WG coupler, and XMTR Cabling (Inc. int. and ext.) for klystrons 28B through 30B (Phase 2)	13-Oct-21	18-Jan-22	31-Aug-21	23-Nov-21	0%	60	$107,568	Greg Norman
P377i945	Install circulators for klystrons 28B through 30B (Phase 2)	01-Nov-21	12-Nov-21	20-Sep-21	01-Oct-21	0%	10	$6,756	Greg Norman
P377i222	Install Conduit for HV Cables - SCL-MOD-28	10-Dec-21	15-Dec-21	27-Oct-21	01-Nov-21	0%	4	$5,005	Greg Norman



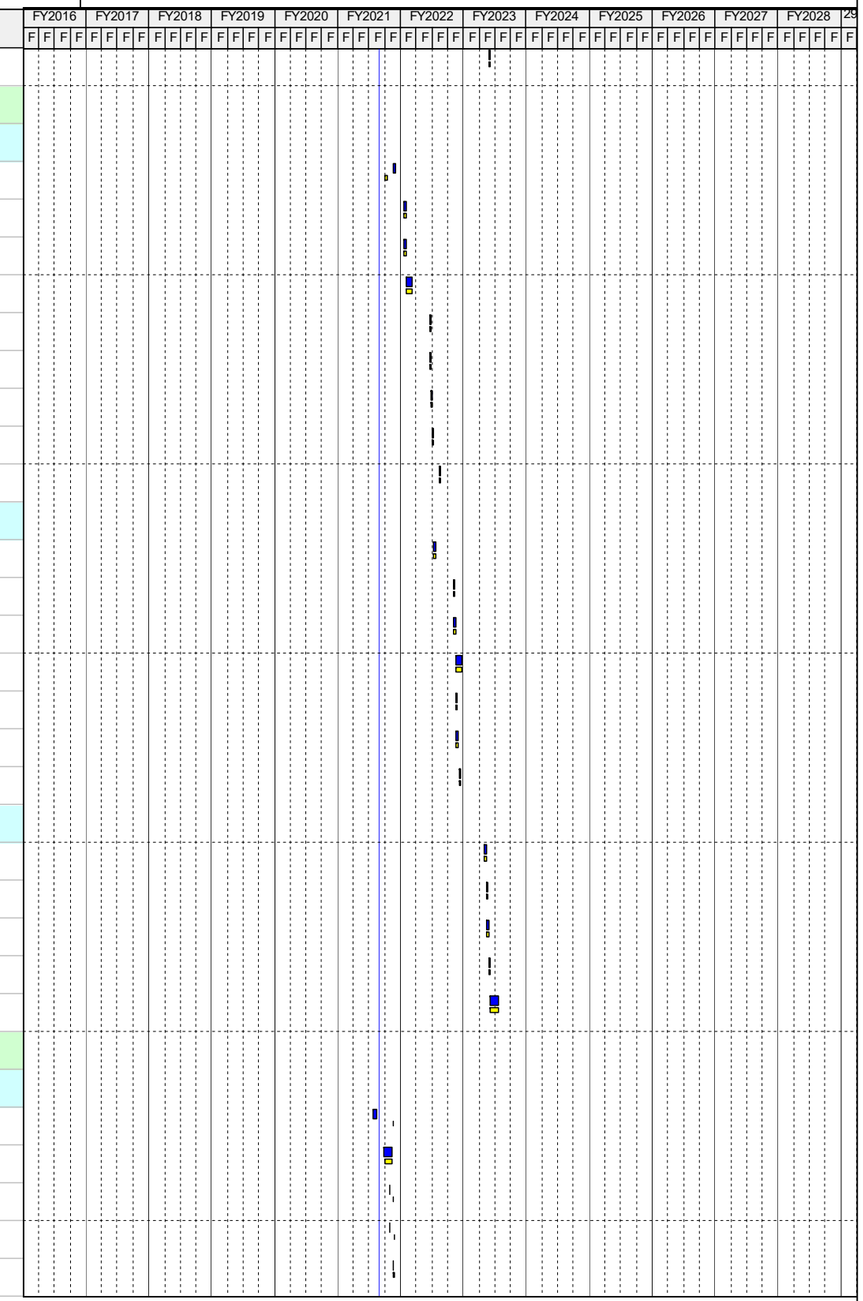
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P377i228	Terminate Connections for klystrons 28B through 30B (Phase 2)	19-Jan-22	01-Feb-22	24-Nov-21	09-Dec-21	0%	10	$10,010	Greg Norman
P377I511	Cable pulls from the klystron gallery LLRF racks to the reference line boxes down in the tunnel (Phase 2)	21-Mar-22	25-Mar-22	21-Mar-22	25-Mar-22	0%	5	$2,502	Greg Norman
P377i220	Set XMTR-27 and XMTR-28 Racks	25-Mar-22	30-Mar-22	02-Mar-22	07-Mar-22	0%	4	$6,133	Greg Norman
P377i905	Terminate AC Power Cables to XMTR-27 and XMTR-28	31-Mar-22	01-Apr-22	08-Mar-22	09-Mar-22	0%	2	$4,222	Greg Norman
P377i915	Turn on AC Power to XMTR-27 and XMTR-28	04-Apr-22	05-Apr-22	10-Mar-22	11-Mar-22	0%	2	$4,222	Greg Norman
P377i244	Install HV Cables (XMTR-27 and 28) - SCL-MOD-28	17-Aug-22	17-Aug-22	17-Aug-22	17-Aug-22	0%	1	$3,241	Greg Norman
P377i248	Terminate HV Cables - SCL-MOD-28	18-Aug-22	23-Aug-22	18-Aug-22	23-Aug-22	0%	4	$3,717	Greg Norman
P.03.07.07.04.02.03	Phase 3 Installation	17-Nov-21	26-Oct-22	06-Oct-21	26-Oct-22		232	$251,955	
P377i224	Install waveguide and loads for klystrons 25A through 28A (Phase 3)	17-Nov-21	25-Feb-22	06-Oct-21	13-Jan-22	0%	63	$101,430	Greg Norman
P377i232	Install LLRF, WG coupler, and XMTR Cabling (Inc. int. and ext.) for klystrons 25A through 28A (Phase 3)	26-Jan-22	20-Apr-22	03-Dec-21	08-Mar-22	0%	60	$107,568	Greg Norman
P377i242	Install Conduit for HV Cables - SCL-MOD-25	23-Mar-22	28-Mar-22	09-Feb-22	14-Feb-22	0%	4	$5,005	Greg Norman
P377i965	Install circulators for klystrons 25A through 28A (Phase 3)	25-Mar-22	07-Apr-22	08-Apr-22	22-Apr-22	0%	10	$6,756	Greg Norman
P377i229	Terminate Connections for klystrons 25A through 28A (Phase 3)	21-Apr-22	04-May-22	09-Mar-22	22-Mar-22	0%	10	$10,010	Greg Norman
P377i240	Set XMTR-25 Racks	22-Apr-22	27-Apr-22	13-Apr-22	19-Apr-22	0%	4	$6,133	Greg Norman
P377i925	Terminate AC Power Cables to XMTR-25	28-Apr-22	29-Apr-22	20-Apr-22	21-Apr-22	0%	2	$3,221	Greg Norman
P377i935	Turn on AC Power to XMTR-25	02-May-22	02-May-22	22-Apr-22	22-Apr-22	0%	1	$3,221	Greg Norman
P377I512	Cable pulls from the klystron gallery LLRF racks to the reference line boxes down in the tunnel (Phase 3)	08-Aug-22	12-Aug-22	08-Aug-22	12-Aug-22	0%	5	$2,502	Greg Norman
P377i250	Install HV Cables (XMTR-25 and 27) - SCL-MOD-25	20-Oct-22	20-Oct-22	20-Oct-22	20-Oct-22	0%	1	$2,297	Greg Norman
P377i252	Terminate HV Cables - SCL-MOD-25	21-Oct-22	26-Oct-22	21-Oct-22	26-Oct-22	0%	4	$3,812	Greg Norman
P.03.07.07.04.03	Cryomodule Controls Cabling Installation	03-May-21 A	11-May-23	06-Jan-21	11-May-23		397	$305,392	
P.03.07.07.04.03.01	Phase 1 Installation	03-May-21 A	11-Apr-22	06-Jan-21	11-Apr-22		129	$93,443	
P377I316	Branch Cable terminations (Pigtail to BLI) CM 32/31 and Labeling of BLI Terminal Blocks	03-May-21 A	03-May-21 A	06-Jan-21	28-Jan-21	100%	0	$19,430	Greg Norman
P377I316a	Branch Cable terminations (Pigtail to BLI) CM 32/31 (Adjustment Activity PCR RF-2021-16)	04-May-21 A	04-May-21 A	03-May-21	03-May-21	100%	0	($19,430)	Greg Norman
P377I304	Install Marshalling Cabinet (Phase 1)	29-Sep-21	08-Oct-21	06-Jul-21	15-Jul-21	0%	8	$3,732	Greg Norman
P377I191	Pull Cryo Controls Cables From Klystron Gallery to Tunnel (Phase 1)	22-Oct-21	02-Nov-21	22-Oct-21	02-Nov-21	0%	8	$26,275	Greg Norman
P377I302	Install 3 Cryo/Tuner Racks Row 50 (Phase 1)	03-Nov-21	12-Nov-21	06-Jul-21	15-Jul-21	0%	8	$3,754	Greg Norman
P377I306	Klystron Gallery cable termination CM 32/31	22-Dec-21	18-Jan-22	22-Dec-21	18-Jan-22	0%	16	$19,894	Greg Norman
P377I314	Linac cable Tunnel terminations (to BLI) CM 32	21-Mar-22	30-Mar-22	21-Mar-22	30-Mar-22	0%	8	$9,947	Greg Norman
P377I316b	Branch Cable terminations (Pigtail to BLI) CM 32/31 and Labeling of BLI Terminal Blocks	21-Mar-22	11-Apr-22	21-Mar-22	11-Apr-22	0%	16	$19,894	Greg Norman
P377I312	Linac cable Tunnel terminations (to BLI) CM 31	31-Mar-22	11-Apr-22	31-Mar-22	11-Apr-22	0%	8	$9,947	Greg Norman
P.03.07.07.04.03.02	Phase 2 Installation	03-May-21 A	17-Nov-22	06-Jan-21	17-Nov-22		231	$127,775	
P377I332	Branch Cable terminations (Pigtail to BLI) CM 30/29/28 and Labeling of BLI Terminal Blocks	03-May-21 A	03-May-21 A	06-Jan-21	28-Jan-21	100%	0	$29,145	Greg Norman
P377I332a	Branch Cable terminations (Pigtail to BLI) CM 30/29/28 (Adjustment Activity PCR RF-2021-16)	04-May-21 A	04-May-21 A	03-May-21	03-May-21	100%	0	($29,145)	Greg Norman



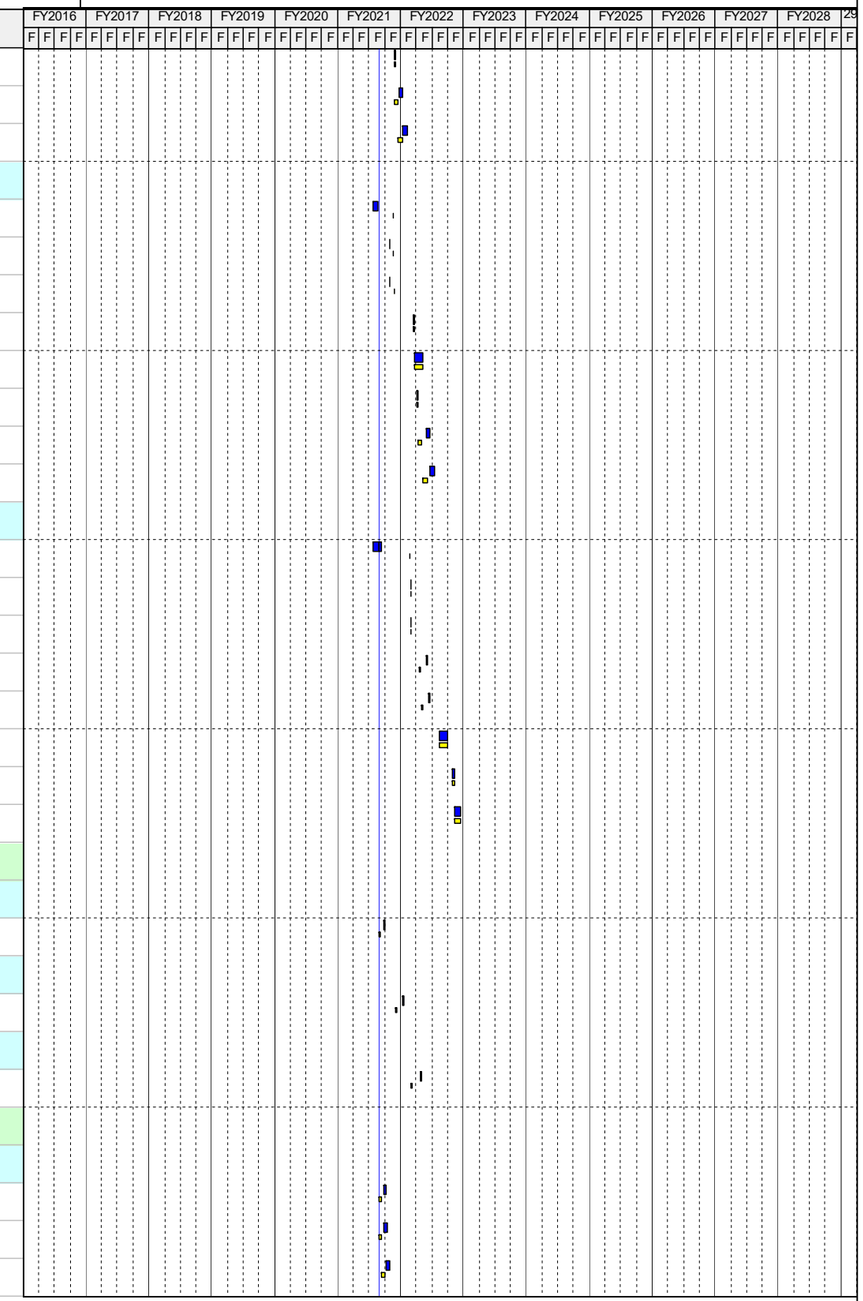
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P377I308	Install Marshalling Cabinet (Phase 2)	14-Dec-21	03-Jan-22	27-Oct-21	05-Nov-21	0%	8	$3,754	Greg Norman
P377I310	Install 3 Cryo/Tuner Racks Row ## (Phase 2)	14-Dec-21	03-Jan-22	27-Oct-21	05-Nov-21	0%	8	$3,754	Greg Norman
P377I401	Pull Cryo Controls Cables From Klystron Gallery to Tunnel (Phase 2)	08-Aug-22	17-Aug-22	08-Aug-22	17-Aug-22	0%	8	$30,029	Greg Norman
P377I332b	Branch Cable terminations (Pigtail to BLI) CM 30/29/28 and Labeling of BLI Terminal Blocks	08-Aug-22	29-Aug-22	08-Aug-22	29-Aug-22	0%	16	$29,841	Greg Norman
P377I330	Linac cable Tunnel terminations (to BLI) CM 30	18-Aug-22	29-Aug-22	18-Aug-22	29-Aug-22	0%	8	$9,947	Greg Norman
P377I328	Linac cable Tunnel terminations (to BLI) CM 29	30-Aug-22	09-Sep-22	30-Aug-22	09-Sep-22	0%	8	$9,947	Greg Norman
P377I326	Linac cable Tunnel terminations (to BLI) CM 28	12-Sep-22	21-Sep-22	12-Sep-22	21-Sep-22	0%	8	$9,947	Greg Norman
P377I322	Klystron Gallery cable termination CM 30/29/28	17-Oct-22	17-Nov-22	17-Oct-22	17-Nov-22	0%	24	$30,557	Greg Norman
P.03.07.07.04.03.03	Phase 3 Installation	03-May-21 A	11-May-23	06-Jan-21	11-May-23		71	$84,175	
P377I338	Branch Cable terminations (Pigtail to BLI) CM 27/25 and Labeling of BLI Terminal Blocks	03-May-21 A	03-May-21 A	06-Jan-21	28-Jan-21	100%	0	$19,430	Greg Norman
P377I338a	Branch Cable terminations (Pigtail to BLI) CM 27/25 (Adjustment Activity PCR RF-2021-16)	04-May-21 A	04-May-21 A	03-May-21	03-May-21	100%	0	($19,430)	Greg Norman
P377I411	Pull Cryo Controls Cables From Klystron Gallery to Tunnel (Phase 3)	01-Feb-23	10-Feb-23	01-Feb-23	10-Feb-23	0%	8	$23,062	Greg Norman
P377I338b	Branch Cable terminations (Pigtail to BLI) CM 27/25 and Labeling of BLI Terminal Blocks	01-Feb-23	22-Feb-23	01-Feb-23	22-Feb-23	0%	16	$20,371	Greg Norman
P377I336	Linac cable Tunnel terminations (to BLI) CM 27	13-Feb-23	22-Feb-23	13-Feb-23	22-Feb-23	0%	8	$10,186	Greg Norman
P377I334	Linac cable Tunnel terminations (to BLI) CM 25	23-Feb-23	06-Mar-23	23-Feb-23	06-Mar-23	0%	8	$10,186	Greg Norman
P377I324	Klystron Gallery cable termination CM 27/25	20-Apr-23	11-May-23	20-Apr-23	11-May-23	0%	16	$20,371	Greg Norman
P.03.07.07.04.04	Insulating Vacuum Cabling Installation	17-Aug-21	07-Mar-23	06-Jul-21	07-Mar-23		381	$73,446	
P.03.07.07.04.04.01	Phase 1 Installation	17-Aug-21	04-Jan-22	06-Jul-21	04-Jan-22		91	$39,684	
P377i402	Replace empty Vac rack with new one in Row 49 for System 8 (Phase 1)	17-Aug-21	30-Aug-21	06-Jul-21	19-Jul-21	0%	10	$5,805	Greg Norman
P377i404	INS Pull Cables for System 8 for CM32 and 31 (Phase 1)	22-Oct-21	05-Nov-21	22-Oct-21	05-Nov-21	0%	11	$4,956	Greg Norman
P377i406	INS Pull Cables for System 7 for 2 Large Roughing Pumps (Phase 1)	22-Oct-21	18-Nov-21	22-Oct-21	18-Nov-21	0%	20	$15,966	Greg Norman
P377i408	INS Terminate (Connectorize) Cables in Tunnel for System 8 - CM32 and 31 (Phase 1)	08-Nov-21	16-Nov-21	08-Nov-21	16-Nov-21	0%	7	$3,210	Greg Norman
P377i410	INS Terminate (Connectorize) Cables in Tunnel for System 7 for 2 Large Roughing Pumps (Phase 1)	19-Nov-21	23-Nov-21	19-Nov-21	23-Nov-21	0%	3	$1,959	Greg Norman
P377i412	INS Terminate Cables in Klystron Gallery for System 8 for CM32 and 31 (Phase 1)	22-Dec-21	04-Jan-22	22-Dec-21	04-Jan-22	0%	7	$4,519	Greg Norman
P377i414	INS Terminate Cables in Klystron Gallery for System 7 for 2 Large Roughing Pumps (Phase 1)	22-Dec-21	28-Dec-21	22-Dec-21	28-Dec-21	0%	3	$3,268	Greg Norman
P.03.07.07.04.04.02	Phase 2 Installation	17-Nov-21	25-Oct-22	06-Oct-21	25-Oct-22		231	$20,719	
P377i400	Replace empty Vac rack with new one in Row 40 for System 7 (Phase 2)	17-Nov-21	02-Dec-21	06-Oct-21	19-Oct-21	0%	10	$5,957	Greg Norman
P377i416	INS Pull Cables for System 7/8 for CM30, 29 and 28 (Phase 2)	08-Aug-22	29-Aug-22	08-Aug-22	29-Aug-22	0%	16	$6,895	Greg Norman
P377i418	INS Terminate (Connectorize) Cables in Tunnel for System 7/8 - CM30, 29 and 28 (Phase 2)	30-Aug-22	08-Sep-22	30-Aug-22	08-Sep-22	0%	7	$3,210	Greg Norman
P377i420	INS Terminate Cables in Klystron Gallery for System 7/8 for CM30, 29 and 28 (Phase 2)	17-Oct-22	25-Oct-22	17-Oct-22	25-Oct-22	0%	7	$4,657	Greg Norman
P.03.07.07.04.04.03	Phase 3 Installation	01-Feb-23	07-Mar-23	01-Feb-23	07-Mar-23		25	$13,043	
P377i422	INS Pull Cables for System 7 for CM27 and 25 (Phase 3)	01-Feb-23	15-Feb-23	01-Feb-23	15-Feb-23	0%	11	$5,088	Greg Norman
P377i424	INS Terminate (Connectorize) Cables in Tunnel for System 7 - CM27 and 25 (Phase 3)	16-Feb-23	24-Feb-23	16-Feb-23	24-Feb-23	0%	7	$3,299	Greg Norman



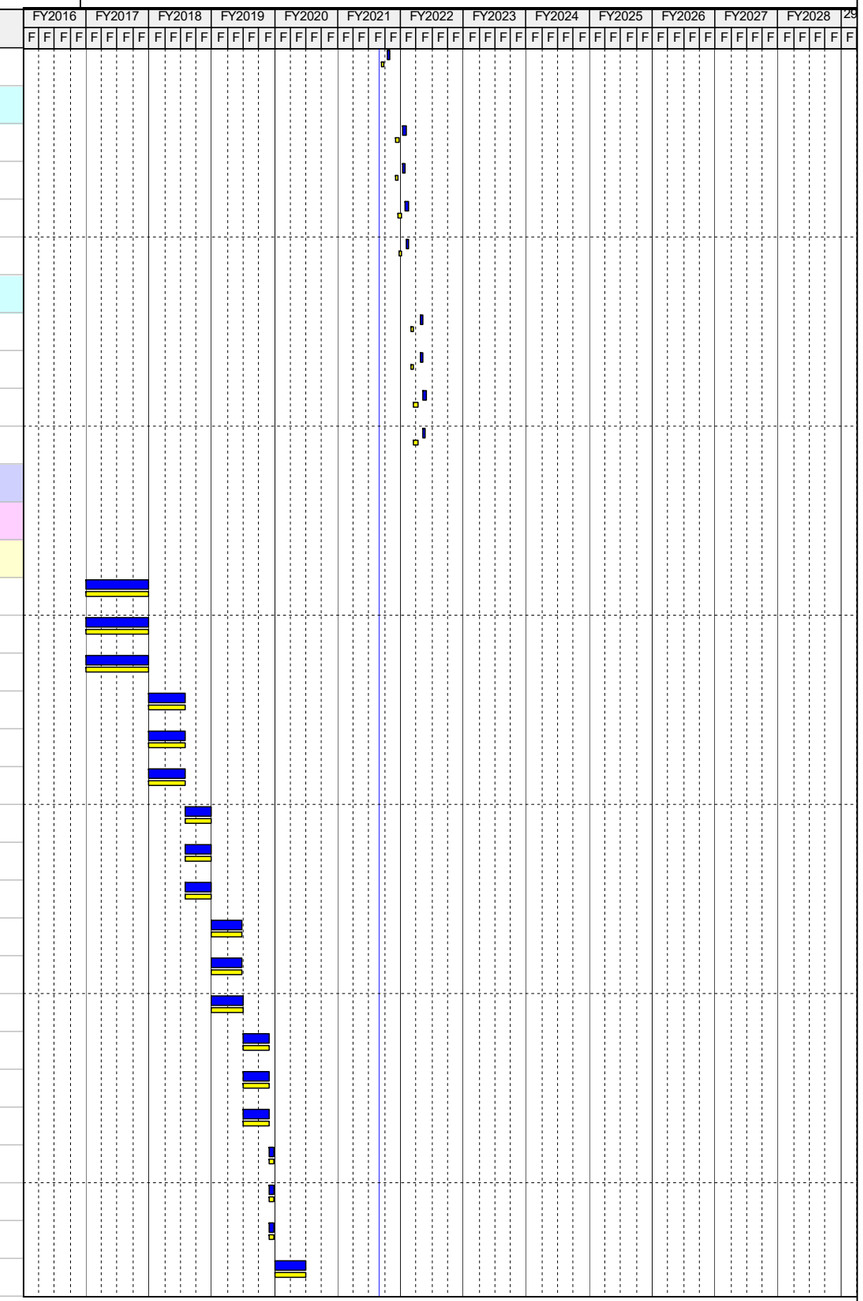
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P377I426	INS Terminate Cables in Klystron Gallery for System 7 for CM27 and 25 (Phase 3)	27-Feb-23	07-Mar-23	27-Feb-23	07-Mar-23	0%	7	$4,657	Greg Norman
P.03.07.07.04.05	Beamline Vacuum Cabling Installation	17-Aug-21	19-Apr-23	06-Jul-21	19-Apr-23		411	$119,712	
P.03.07.07.04.05.01	Phase 1 Installation	17-Aug-21	20-May-22	06-Jul-21	20-May-22		187	$50,785	
P377I502	Install Row 50 Rack BL Vacuum Rack - System 9 (Phase 1)	17-Aug-21	30-Aug-21	06-Jul-21	19-Jul-21	0%	10	$2,299	Greg Norman
P377I495	SCL Pull Cables for BL Vac System 9 (Phase 1) - CM 32 - HEDP	22-Oct-21	04-Nov-21	22-Oct-21	04-Nov-21	0%	10	$9,379	Greg Norman
P377I500	SCL Pull Cables for BL Vac System 9 (Phase 1) - CM 31	22-Oct-21	04-Nov-21	22-Oct-21	04-Nov-21	0%	10	$4,286	Greg Norman
P377I504	SCL Terminate Cables for BL Vac System 9 (Phase 1) - Klystron Gallery end	05-Nov-21	06-Dec-21	05-Nov-21	06-Dec-21	0%	20	$10,838	Greg Norman
P377I514	SCL Terminate (Connectorize) Cables for BL Vac System 9 (Phase 1) - Linac Tunnel end - HEDP	21-Mar-22	25-Mar-22	21-Mar-22	25-Mar-22	0%	5	$2,728	Greg Norman
P377I516	Demo Existing Tunnel cables for CM32, 31, and HEDP	21-Mar-22	25-Mar-22	21-Mar-22	25-Mar-22	0%	5	$6,970	Greg Norman
P377I518	SCL Terminate (Connectorize) Cables for BL Vac System 9 (Phase 1) - Linac Tunnel end - CM32	28-Mar-22	01-Apr-22	28-Mar-22	01-Apr-22	0%	5	$3,348	Greg Norman
P377I522	SCL Terminate (Connectorize) Cables for BL Vac System 9 (Phase 1) - Linac Tunnel end - CM31	04-Apr-22	08-Apr-22	04-Apr-22	08-Apr-22	0%	5	$3,967	Greg Norman
P377I875	Demo Existing Klystron Gallery cables for CM32, 31, and HEDP	16-May-22	20-May-22	16-May-22	20-May-22	0%	5	$6,970	Greg Norman
P.03.07.07.04.05.02	Phase 2 Installation	11-Apr-22	19-Sep-22	11-Apr-22	19-Sep-22		112	$35,966	
P377I480	SCL Pull Cables for BL Vac System 8 (Phase 2) - CM 30	11-Apr-22	25-Apr-22	11-Apr-22	25-Apr-22	0%	10	$5,093	Greg Norman
P377I532	SCL Terminate (Connectorize) Cables for BL Vac System 8 (Phase 2) - Linac Tunnel end - CM 30	08-Aug-22	12-Aug-22	08-Aug-22	12-Aug-22	0%	5	$3,348	Greg Norman
P377I485	SCL Pull Cables for BL Vac System 8 (Phase 2) - CM 29	08-Aug-22	19-Aug-22	08-Aug-22	19-Aug-22	0%	10	$4,280	Greg Norman
P377I524	SCL Terminate Cables for BL Vac System 8 (Phase 2) - Klystron Gallery end	22-Aug-22	19-Sep-22	22-Aug-22	19-Sep-22	0%	20	$11,457	Greg Norman
P377I534	SCL Terminate (Connectorize) Cables for BL Vac System 8 (Phase 2) - Linac Tunnel end - CM29	22-Aug-22	26-Aug-22	22-Aug-22	26-Aug-22	0%	5	$3,348	Greg Norman
P377I490	SCL Pull Cables for BL Vac System 8 (Phase 2) - CM 28	22-Aug-22	02-Sep-22	22-Aug-22	02-Sep-22	0%	10	$5,093	Greg Norman
P377I536	SCL Terminate (Connectorize) Cables for BL Vac System 8 (Phase 2) - Linac Tunnel end - CM28	06-Sep-22	12-Sep-22	06-Sep-22	12-Sep-22	0%	5	$3,348	Greg Norman
P.03.07.07.04.05.03	Phase 3 Installation	01-Feb-23	19-Apr-23	01-Feb-23	19-Apr-23		55	$32,960	
P377I470	SCL Pull Cables for BL Vac System 7 (Phase 3) - CM 27	01-Feb-23	14-Feb-23	01-Feb-23	14-Feb-23	0%	10	$5,225	Greg Norman
P377I542	SCL Terminate (Connectorize) Cables for BL Vac System 7 (Phase 3) - Linac Tunnel end - CM 27	15-Feb-23	21-Feb-23	15-Feb-23	21-Feb-23	0%	5	$3,436	Greg Norman
P377I475	SCL Pull Cables for BL Vac System 7 (Phase 3) - CM 25	15-Feb-23	28-Feb-23	15-Feb-23	28-Feb-23	0%	10	$5,225	Greg Norman
P377I544	SCL Terminate (Connectorize) Cables for BL Vac System 7 (Phase 3) - Linac Tunnel end - CM 25	01-Mar-23	07-Mar-23	01-Mar-23	07-Mar-23	0%	5	$3,436	Greg Norman
P377I538	SCL Terminate Cables for BL Vac System 7 (Phase 3) - Klystron Gallery end	08-Mar-23	19-Apr-23	08-Mar-23	19-Apr-23	0%	30	$15,638	Greg Norman
P.03.07.07.04.06	HVCM Cabling Installation	23-Apr-21 A	13-Sep-22	02-Jul-21	13-Sep-22		320	$473,688	
P.03.07.07.04.06.01	Phase 1 Installation	23-Apr-21 A	09-Nov-21	02-Jul-21	12-Oct-21		94	$156,471	
P377I610	Install Loxarmor Cabling SCL-MOD-30	23-Apr-21 A	13-May-21 A	17-Aug-21	17-Aug-21	100%	0	$5,377	Greg Norman
P377I256	Install SCL-MOD-30 Cables	29-Jun-21	11-Aug-21	02-Jul-21	16-Aug-21	0%	31	$75,214	Greg Norman
P377I460	Tie in 13.8kV Power Cables to Transformer SCL-MOD-30	29-Jul-21	29-Jul-21	23-Aug-21	23-Aug-21	0%	1	$1,222	Greg Norman
P377I614	Energize Switchgear SCL-MOD-30	30-Jul-21	30-Jul-21	24-Aug-21	24-Aug-21	0%	1	$611	Greg Norman
P377I616	Install SCR cabinets for SCL-MOD-30	17-Aug-21	23-Aug-21	18-Aug-21	24-Aug-21	0%	5	$733	Greg Norman



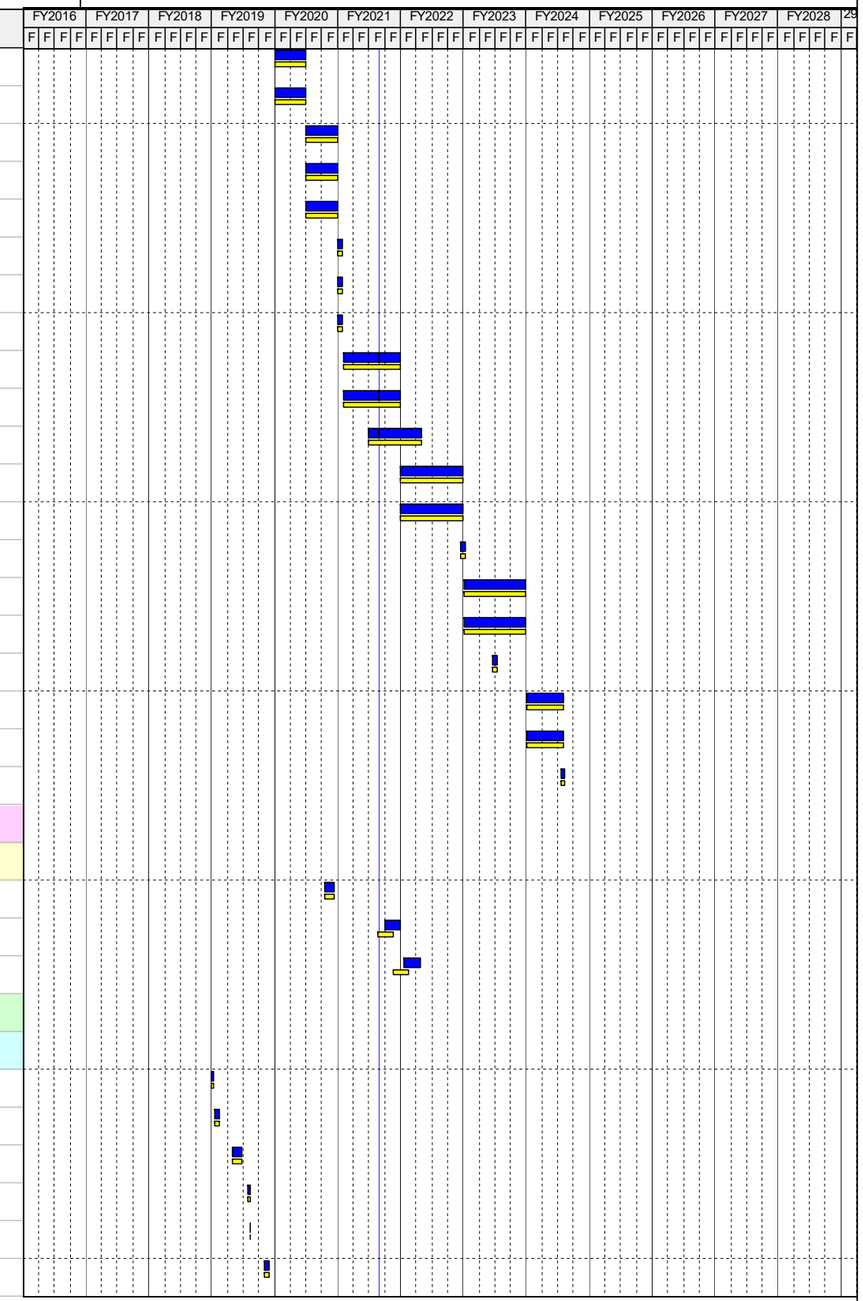
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P377I620	Install SCR control cables for SCL-MOD-30	27-Aug-21	02-Sep-21	30-Aug-21	03-Sep-21	0%	5	$6,110	Greg Norman
P377I640	Install 4/0 cables and conduit for SCL-MOD-30 (SCR to Safety Enclosure)	24-Sep-21	11-Oct-21	26-Aug-21	13-Sep-21	0%	12	$15,530	Greg Norman
P377I618	Terminate & Test Cabling SCL-MOD-30	12-Oct-21	09-Nov-21	14-Sep-21	12-Oct-21	0%	21	$51,675	Greg Norman
P.03.07.07.04.06.02	Phase 2 Installation	23-Apr-21 A	19-Apr-22	17-Aug-21	09-Mar-22		177	$158,587	
P377I624	Install Loxarmor Cabling SCL-MOD-28	23-Apr-21 A	21-May-21 A	17-Aug-21	17-Aug-21	100%	0	$5,377	Greg Norman
P377I660	Tie in 13.8kV Power Cables to Transformer SCL-MOD-28	29-Jul-21	29-Jul-21	23-Aug-21	23-Aug-21	0%	1	$1,222	Greg Norman
P377I628	Energize Switchgear SCL-MOD-28	30-Jul-21	30-Jul-21	24-Aug-21	24-Aug-21	0%	1	$611	Greg Norman
P377I630	Install SCR cabinets for SCL-MOD-28	16-Dec-21	22-Dec-21	16-Dec-21	22-Dec-21	0%	5	$751	Greg Norman
P377I246	Install SCL-MOD-28 Cables	22-Dec-21	08-Feb-22	22-Dec-21	08-Feb-22	0%	31	$77,011	Greg Norman
P377I634	Install SCR control cables for SCL-MOD-28	06-Jan-22	12-Jan-22	06-Jan-22	12-Jan-22	0%	5	$6,256	Greg Norman
P377I648	Install 4/0 cables and conduit for SCL-MOD-28 (SCR to Safety Enclosure)	03-Mar-22	18-Mar-22	14-Jan-22	01-Feb-22	0%	12	$15,684	Greg Norman
P377I632	Terminate & Test Cabling SCL-MOD-28	21-Mar-22	19-Apr-22	09-Feb-22	09-Mar-22	0%	21	$51,675	Greg Norman
P.03.07.07.04.06.03	Phase 3 Installation	23-Apr-21 A	13-Sep-22	24-Nov-21	13-Sep-22		320	$158,630	
P377I636	Install Loxarmor Cabling SCL-MOD-25	23-Apr-21 A	11-Jun-21	24-Nov-21	24-Nov-21	10%	9	$5,377	Greg Norman
P377I670	Tie in 13.8kV Power Cables to Transformer SCL-MOD-25	30-Nov-21	30-Nov-21	02-Dec-21	02-Dec-21	0%	1	$1,251	Greg Norman
P377I638	Energize Switchgear SCL-MOD-25	01-Dec-21	01-Dec-21	03-Dec-21	03-Dec-21	0%	1	$626	Greg Norman
P377I642	Install SCR cabinets for SCL-MOD-25	02-Mar-22	08-Mar-22	19-Jan-22	25-Jan-22	0%	5	$751	Greg Norman
P377I646	Install SCR control cables for SCL-MOD-25	14-Mar-22	18-Mar-22	31-Jan-22	04-Feb-22	0%	5	$6,256	Greg Norman
P377I121	Install SCL-MOD-25 Cables	16-May-22	28-Jun-22	16-May-22	28-Jun-22	0%	31	$77,011	Greg Norman
P377I650	Install 4/0 cables and conduit for SCL-MOD-25 (SCR to Safety Enclosure)	28-Jul-22	12-Aug-22	28-Jul-22	12-Aug-22	0%	12	$15,684	Greg Norman
P377I644	Terminate & Test Cabling SCL-MOD-25	15-Aug-22	13-Sep-22	15-Aug-22	13-Sep-22	0%	21	$51,675	Greg Norman
P.03.07.07.04.07	PPS Cabling Installation	29-Jun-21	01-Feb-22	28-May-21	09-Dec-21		144	$15,270	
P.03.07.07.04.07.01	Phase 1 Installation	29-Jun-21	06-Jul-21	28-May-21	04-Jun-21		5	$5,010	
P377I161	Install PPS Cables (Phase 1)	29-Jun-21	06-Jul-21	28-May-21	04-Jun-21	0%	5	$5,010	Greg Norman
P.03.07.07.04.07.02	Phase 2 Installation	13-Oct-21	19-Oct-21	31-Aug-21	07-Sep-21		5	$5,130	
P377I341	Install PPS Cables (Phase 2)	13-Oct-21	19-Oct-21	31-Aug-21	07-Sep-21	0%	5	$5,130	Greg Norman
P.03.07.07.04.07.03	Phase 3 Installation	26-Jan-22	01-Feb-22	03-Dec-21	09-Dec-21		5	$5,130	
P377I351	Install PPS Cables (Phase 3)	26-Jan-22	01-Feb-22	03-Dec-21	09-Dec-21	0%	5	$5,130	Greg Norman
P.03.07.07.04.08	Clobal Controls Cabling Installation	29-Jun-21	28-Feb-22	28-May-21	14-Jan-22		163	$76,292	
P.03.07.07.04.08.01	Phase 1 Installation	29-Jun-21	02-Aug-21	28-May-21	01-Jul-21		24	$27,495	
P377I146	Install ICS Global Controls Cables (Phase 1)	29-Jun-21	12-Jul-21	28-May-21	10-Jun-21	0%	9	$7,882	Greg Norman
P377i802	Communication cable installation labor Phase 1	29-Jun-21	13-Jul-21	28-May-21	11-Jun-21	0%	10	$12,220	Greg Norman
P377i804	ICS cable terminations for Phase 1 (fiber and copper)	13-Jul-21	02-Aug-21	11-Jun-21	01-Jul-21	0%	15	$2,505	Greg Norman



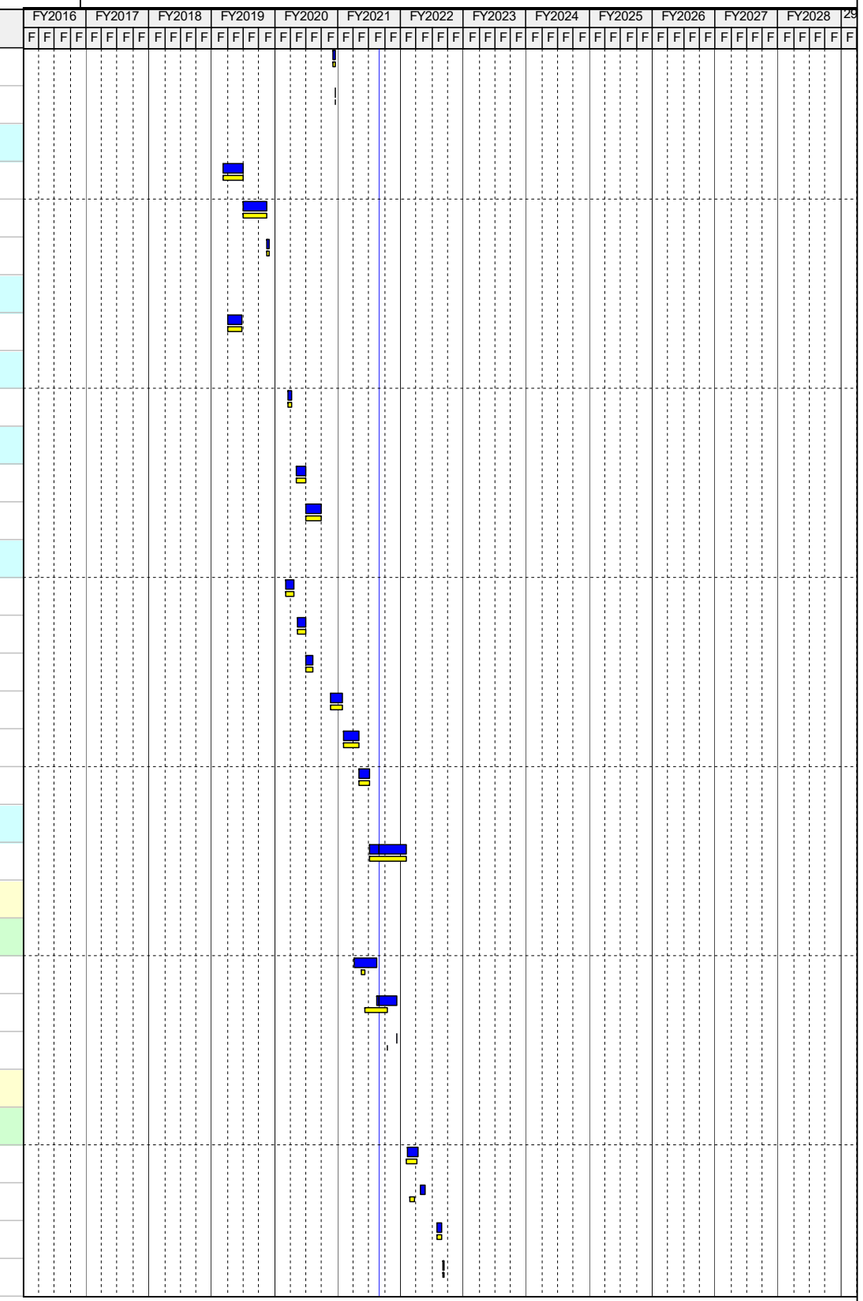
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P377i806	Communication cable Termination Phase 1	14-Jul-21	27-Jul-21	14-Jun-21	25-Jun-21	0%	10	$4,888	Greg Norman
P.03.07.07.04.08.02 Phase 2 Installation		13-Oct-21	16-Nov-21	31-Aug-21	05-Oct-21		25	$28,152	
P377i808	Communication cable installation labor Phase 2	13-Oct-21	02-Nov-21	31-Aug-21	21-Sep-21	0%	15	$12,512	Greg Norman
P377I421	Install ICS Global Controls Cables (Phase 2)	13-Oct-21	25-Oct-21	31-Aug-21	13-Sep-21	0%	9	$8,070	Greg Norman
P377i812	ICS cable terminations for Phase 2 (fiber and copper)	26-Oct-21	15-Nov-21	14-Sep-21	04-Oct-21	0%	15	$2,565	Greg Norman
P377i814	Communication cable Termination Phase 2	03-Nov-21	16-Nov-21	22-Sep-21	05-Oct-21	0%	10	$5,005	Greg Norman
P.03.07.07.04.08.03 Phase 3 Installation		26-Jan-22	28-Feb-22	03-Dec-21	14-Jan-22		24	$20,645	
P377i818	Communication cable installation labor Phase 3	26-Jan-22	08-Feb-22	03-Dec-21	16-Dec-21	0%	10	$5,005	Greg Norman
P377I431	Install ICS Global Controls Cables (Phase 3)	26-Jan-22	07-Feb-22	03-Dec-21	15-Dec-21	0%	9	$8,070	Greg Norman
P377i822	ICS cable terminations for Phase 3 (fiber and copper)	08-Feb-22	28-Feb-22	16-Dec-21	14-Jan-22	0%	15	$2,565	Greg Norman
P377i824	Communication cable Termination Phase 3	09-Feb-22	22-Feb-22	17-Dec-21	10-Jan-22	0%	10	$5,005	Greg Norman
P.03.08 RF Controls		03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		730	$572,841	
P.03.08.01 Management and System Integration - RF Controls		03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		730	$94,614	
P.03.08.01.01 Management and System Integration - RF Controls - (NEP38110)		03-Oct-16 A	14-May-24	03-Oct-16	14-May-24		730	$94,614	
P381M1	WBS Management P.3.8 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Karen White
P381M62	WBS Management P.3.8.2 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Karen White
P381M78	CAM management P.3.8.3 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Karen White
P381M64	WBS Management P.3.8.2 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Karen White
P381M80	CAM management P.3.8.3 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Karen White
P381M10	WBS Management P.3.8 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Karen White
P381M6	WBS Management P.3.8 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Karen White
P381M66	WBS Management P.3.8.2 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Karen White
P381M82	CAM management P.3.8.3 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Karen White
P381M11	WBS Management P.3.8 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Karen White
P381M84	CAM management P.3.8.3 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Karen White
P381M68	WBS Management P.3.8.2 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Karen White
P381M84B	CAM management P.3.8.3 FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Karen White
P381M11B	WBS Management P.3.8 FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Karen White
P381M68B	WBS Management P.3.8.2 FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Karen White
P381M68C	WBS Management P.3.8.2 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Karen White
P381M11C	WBS Management P.3.8 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Karen White
P381M84C	CAM management P.3.8.3 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Karen White
P381M16	WBS Management P.3.8 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Karen White



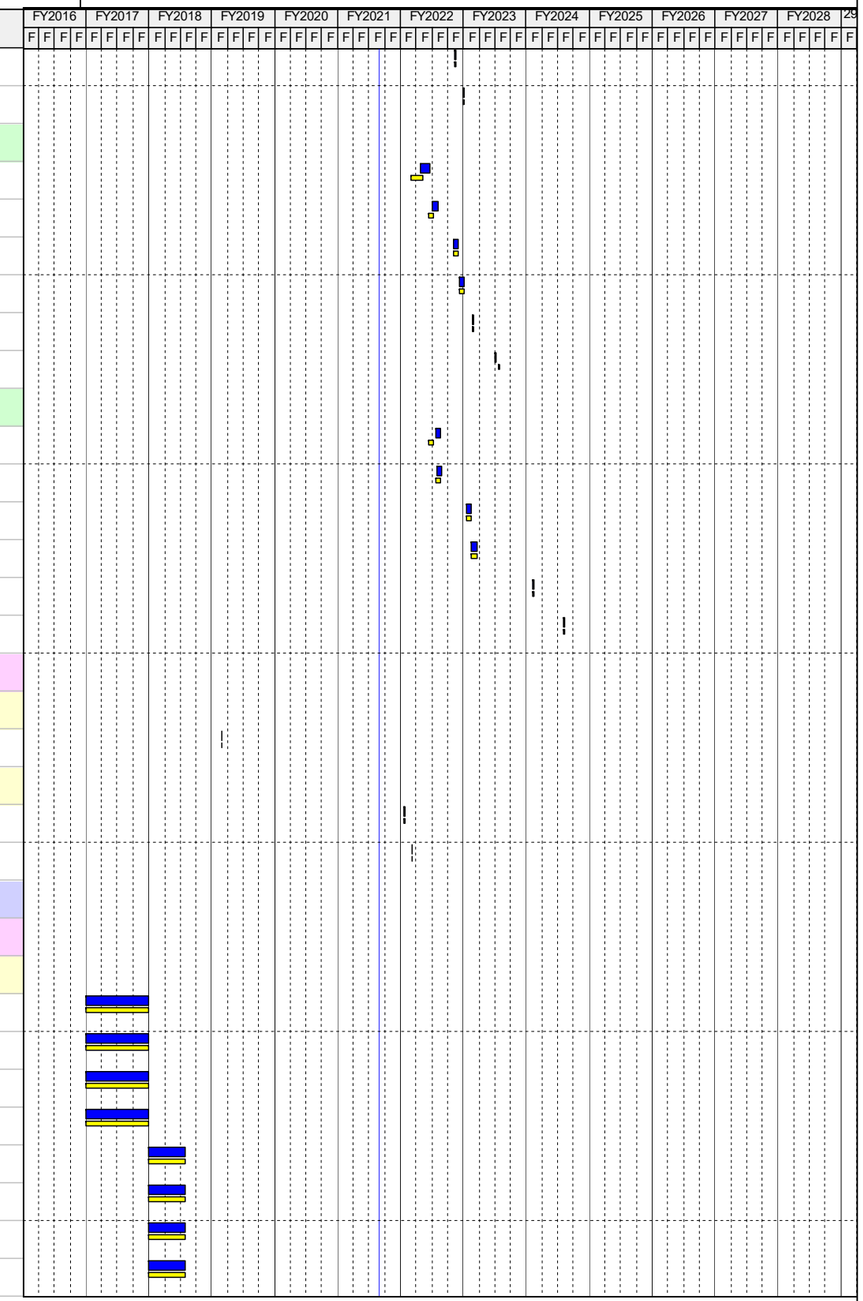
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P381M70	WBS Management P.3.8.2 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Karen White
P381M86	CAM management P.3.8.3 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Karen White
P381M86a	CAM management P.3.8.3 FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Karen White
P381M16a	WBS Management P.3.8 FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Karen White
P381M70a	WBS Management P.3.8.2 FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Karen White
P381M21	WBS Management P.3.8 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Karen White
P381M72	WBS Management P.3.8.2 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Karen White
P381M88	CAM management P.3.8.3 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Karen White
P381M21a	WBS Management P.3.8 FY21 (LOE) Part 2 (Nov20 - Sep21)	02-Nov-20 A	30-Sep-21	02-Nov-20	30-Sep-21	61.26%	86	$11,287	Karen White
P381M72a	WBS Management P.3.8.2 FY21 (LOE) Part 2 (Nov20 - Sep21)	02-Nov-20 A	30-Sep-21	02-Nov-20	30-Sep-21	61.26%	86	$8,495	Karen White
P381M88a	CAM management P.3.8.3 FY21 (LOE) Part 2 (Mar21 - Jan22)	29-Mar-21 A	31-Jan-22	29-Mar-21	31-Jan-22	21.26%	163	$17,047	Karen White
P381M26	WBS Management P.3.8 FY22 (LOE)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$12,661	Karen White
P381M74	WBS Management P.3.8.2 FY22 (LOE)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$6,331	Karen White
P381M003	P.3.8 and P.3.9 Organize and Verify Documentation for Phase 1 ARR	13-Sep-22	10-Oct-22	13-Sep-22	10-Oct-22	0%	20	$7,683	Karen White
P381M31	WBS Management P.3.8 FY23 (LOE)	03-Oct-22	29-Sep-23	03-Oct-22	29-Sep-23	0%	245	$6,571	Karen White
P381M76	WBS Management P.3.8.2 FY23 (LOE)	03-Oct-22	29-Sep-23	03-Oct-22	29-Sep-23	0%	245	$3,286	Karen White
P381M002	P.3.8 and P.3.9 Organize and Verify Documentation for Phase 2 ARR	16-Mar-23	13-Apr-23	16-Mar-23	13-Apr-23	0%	20	$7,885	Karen White
P381M79	WBS Management P.3.8.2 FY24 (LOE)	02-Oct-23	07-May-24	02-Oct-23	07-May-24	0%	147	$1,228	Karen White
P381M35	WBS Management P.3.8 FY24 (LOE)	02-Oct-23	07-May-24	02-Oct-23	07-May-24	0%	147	$3,956	Karen White
P381M001	P.3.8 and P.3.9 Organize and Verify Documentation for Phase 3 ARR	17-Apr-24	14-May-24	17-Apr-24	14-May-24	0%	20	$8,185	Karen White
P.03.08.02 Linac RF Controls		01-Oct-18 A	08-May-24	01-Oct-18	08-May-24		726	$472,399	
P.03.08.02.02 Design - Linac RF Controls - (NEP38220)		01-Oct-18 A	24-Jan-22	01-Oct-18	15-Nov-21		158	$227,131	
P382D116	Update Row 35 equipment rack drawings	17-Jul-20 A	11-Sep-20 A	17-Jul-20	11-Sep-20	100%	0	$0	Karen White
P382D181	EPICS SW replication for the HVCM systems	02-Jul-21	28-Sep-21	24-May-21	17-Aug-21	0%	60	$26,936	Karen White
P382D186	EPICS SW replication for the HPRF systems	19-Oct-21	24-Jan-22	23-Aug-21	15-Nov-21	0%	60	$29,138	Karen White
P.03.08.02.02.01 LLRF SW Support		01-Oct-18 A	01-Nov-21	01-Oct-18	01-Nov-21		108	$171,058	
P.03.08.02.02.01.01 General		01-Oct-18 A	17-Sep-20 A	01-Oct-18	17-Sep-20		0	$0	
P382D605	SW Support for LLRF - Setup test area in LLRF Lab to support development	01-Oct-18 A	12-Oct-18 A	01-Oct-18	12-Oct-18	100%	0	$0	Karen White
P382D600	SW Support for LLRF - Additional Firmware Design for Platform Alternatives	16-Oct-18 A	14-Nov-18 A	16-Oct-18	14-Nov-18	100%	0	$0	Karen White
P382D610	SW Support for LLRF - Generate Software Requirements Document 1%	30-Jan-19 A	29-Mar-19 A	30-Jan-19	29-Mar-19	100%	0	$0	Karen White
P382D635	SW Support for LLRF - Prep for LLRF Preliminary Design Review (PDR)	01-May-19 A	13-May-19 A	01-May-19	13-May-19	100%	0	$0	Karen White
P382D640	SW Support for LLRF - P.3.4 LLRF Preliminary Design Review (PDR)	14-May-19 A	15-May-19 A	14-May-19	15-May-19	100%	0	$0	Karen White
P382D610B	SW Support for LLRF - Generate Software Requirements Document - Continued	01-Aug-19 A	30-Aug-19 A	01-Aug-19	30-Aug-19	100%	0	$0	Karen White



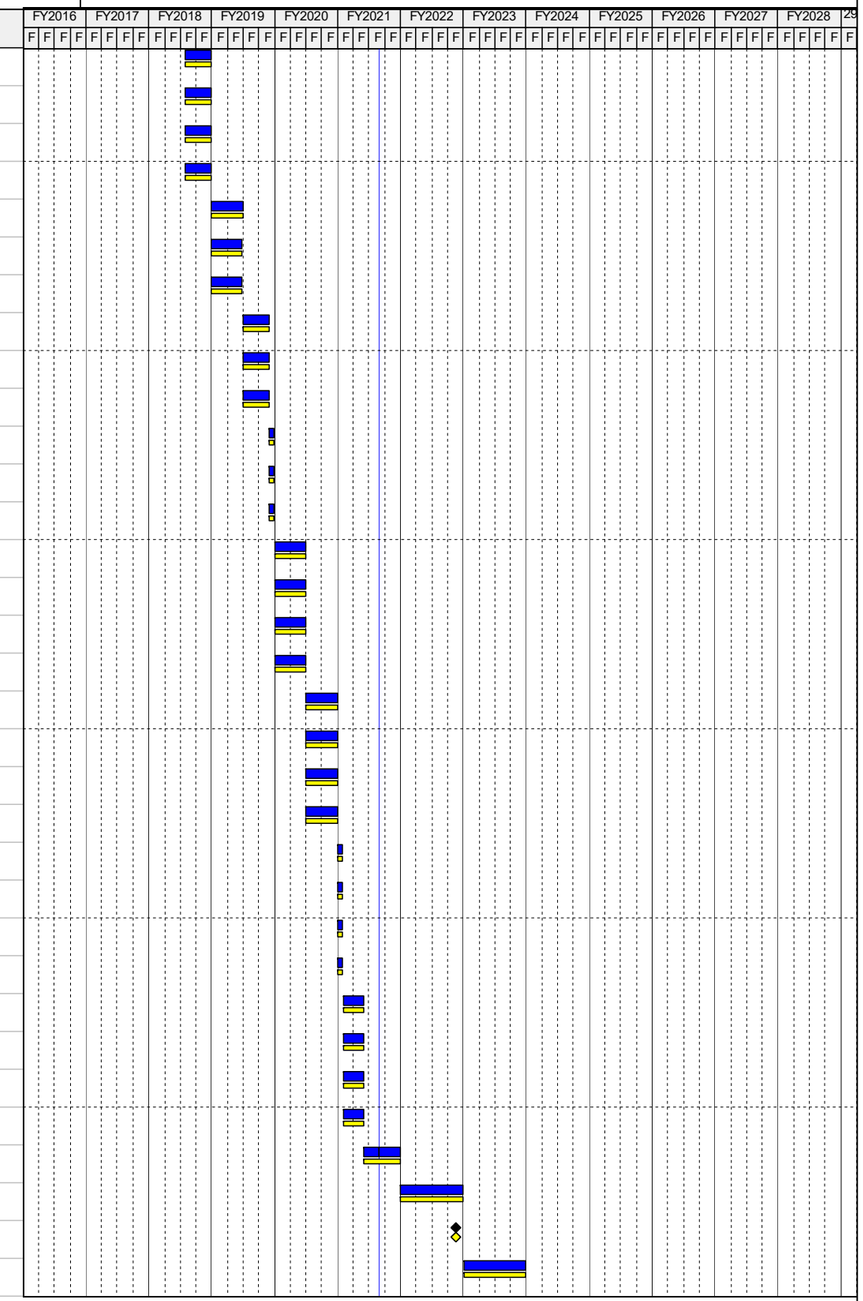
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P382D680	SW Support for LLRF - Prep for LLRF Final Design Review (FDR)	01-Sep-20 A	15-Sep-20 A	01-Sep-20	15-Sep-20	100%	0	$0	Karen White
P382D685	SW Support for LLRF - P.3.4 LLRF Final Design review (FDR)	16-Sep-20 A	17-Sep-20 A	16-Sep-20	17-Sep-20	100%	0	$0	Karen White
P.03.08.02.02.01.02	Design test article of HPM-II RTM	04-Dec-18 A	30-Aug-19 A	04-Dec-18	30-Aug-19		0	$0	
P382D615	SW Support for LLRF - write test firmware for HPM-II RTM 85%	04-Dec-18 A	29-Mar-19 A	04-Dec-18	29-Mar-19	100%	0	$0	Karen White
P382D615B	SW Support for LLRF - write test firmware for HPM-II RTM - Continued	01-Apr-19 A	16-Aug-19 A	01-Apr-19	16-Aug-19	100%	0	$0	Karen White
P382D620	SW Support for LLRF - test, iterate, rework of the HPM-II RTM	19-Aug-19 A	30-Aug-19 A	19-Aug-19	30-Aug-19	100%	0	$0	Karen White
P.03.08.02.02.01.03	Develop System Model	03-Jan-19 A	29-Mar-19 A	03-Jan-19	29-Mar-19		0	$0	
P382D315	SW Support for LLRF - Model Cavity Klystron and Controller 15%	03-Jan-19 A	29-Mar-19 A	03-Jan-19	29-Mar-19	100%	0	$0	Karen White
P.03.08.02.02.01.04	Design test article of FCM-II RTM	16-Dec-19 A	10-Jan-20 A	16-Dec-19	10-Jan-20		0	$0	
P382D650	SW Support for LLRF - write test firmware for FCM-II RTM - interface software for FCM-II RTM	16-Dec-19 A	10-Jan-20 A	16-Dec-19	10-Jan-20	100%	0	$0	Karen White
P.03.08.02.02.01.05	Firmware Development HPM-II	03-Feb-20 A	30-Jun-20 A	03-Feb-20	30-Jun-20		0	$0	
P382D730	SW Support for LLRF - Firmware Developement HPM-II (LOE)	03-Feb-20 A	31-Mar-20 A	03-Feb-20	31-Mar-20	100%	0	$0	Karen White
P382D730a	SW Support for LLRF - Firmware Developement HPM-II (LOE) (Apr20>)	01-Apr-20 A	30-Jun-20 A	01-Apr-20	30-Jun-20	100%	0	$0	Karen White
P.03.08.02.02.01.07	Software for Firmware Development for LLRF - basic functionality	02-Dec-19 A	07-Apr-21 A	02-Dec-19	07-Apr-21		0	$114,726	
P382D665	SW Support for LLRF - Define Firmware Block Diagram and define interfaces (Hardware/Software)	02-Dec-19 A	24-Jan-20 A	02-Dec-19	24-Jan-20	100%	0	$0	Karen White
P382D750	SW Support for LLRF - Firmware Development - basic functionality (LOE)	11-Feb-20 A	31-Mar-20 A	11-Feb-20	31-Mar-20	100%	0	$0	Karen White
P382D750a	SW Support for LLRF - Firmware Development - basic functionality (LOE) (Apr20>)	01-Apr-20 A	13-May-20 A	01-Apr-20	13-May-20	100%	0	$0	Karen White
P382D705	SW Support for LLRF - Iterate Firmware / Bug Fixes (Cycle 1) (LOE) (Converted to LOE)	19-Aug-20 A	30-Oct-20 A	19-Aug-20	30-Oct-20	100%	0	$0	Karen White
P382D710	SW Support for LLRF - Iterate Firmware / Bug Fixes (Cycle 2) (LOE) (Converted to LOE)	02-Nov-20 A	01-Feb-21 A	02-Nov-20	01-Feb-21	100%	0	$56,470	Karen White
P382D740	SW Support for LLRF - Iterate Firmware / Bug Fixes (Cycle 3) (LOE) (Converted to LOE)	02-Feb-21 A	07-Apr-21 A	02-Feb-21	07-Apr-21	100%	0	$58,256	Karen White
P.03.08.02.02.01.08	Software for Firmware Development for LLRF - advanced functionality	08-Apr-21 A	01-Nov-21	08-Apr-21	01-Nov-21		108	$56,332	
P382D720	SW Support for LLRF - Integrate Advanced Features into LLRF System (LOE)	08-Apr-21 A	01-Nov-21	08-Apr-21	01-Nov-21	25.52%	108	$56,332	Karen White
P.03.08.02.03	Procure/Fab - Linac RF Controls - (NEP38231)	04-Jan-21 A	10-Sep-21	15-Feb-21	15-Jul-21		72	$59,434	
P.03.08.02.03.02	Processors for the LLRF crates	04-Jan-21 A	10-Sep-21	15-Feb-21	15-Jul-21		72	$59,434	
P382P141	Procure processors for the LLRF crates (and timing daughter cards)	04-Jan-21 A	14-May-21 A	15-Feb-21	05-Mar-21	100%	0	$97	Karen White
P382P121	Fabrication of processors for the LLRF crates (and timing daughter cards)	17-May-21 A	09-Sep-21	08-Mar-21	14-Jul-21	15%	71	$0	Karen White
P382P221	Receive processors for the LLRF crates (and timing daughter cards)	10-Sep-21	10-Sep-21	15-Jul-21	15-Jul-21	0%	1	$59,337	Karen White
P.03.08.02.04	Installation - Linac RF Controls - (NEP38240)	09-Nov-21	08-May-24	02-Nov-21	08-May-24		613	$185,833	
P.03.08.02.04.1	Phase 1 Installation	09-Nov-21	03-Oct-22	02-Nov-21	03-Oct-22		221	$66,877	
P382i166	LLRF Controls SW configuration for XMTR-31 and 30 (Phase 1)	09-Nov-21	14-Jan-22	02-Nov-21	07-Jan-22	0%	40	$36,056	Karen White
P382i760	HPRF SW deployment XMTR-31 and 30	25-Jan-22	21-Feb-22	23-Nov-21	22-Dec-21	0%	20	$9,014	Karen White
P382i206	HPRF SW deployment HVCM 30	29-Apr-22	26-May-22	29-Apr-22	26-May-22	0%	20	$9,014	Karen White
P382I356	HPRF and HVCM integration testing SCL-MOD-30	02-Jun-22	08-Jun-22	02-Jun-22	08-Jun-22	0%	5	$2,253	Karen White



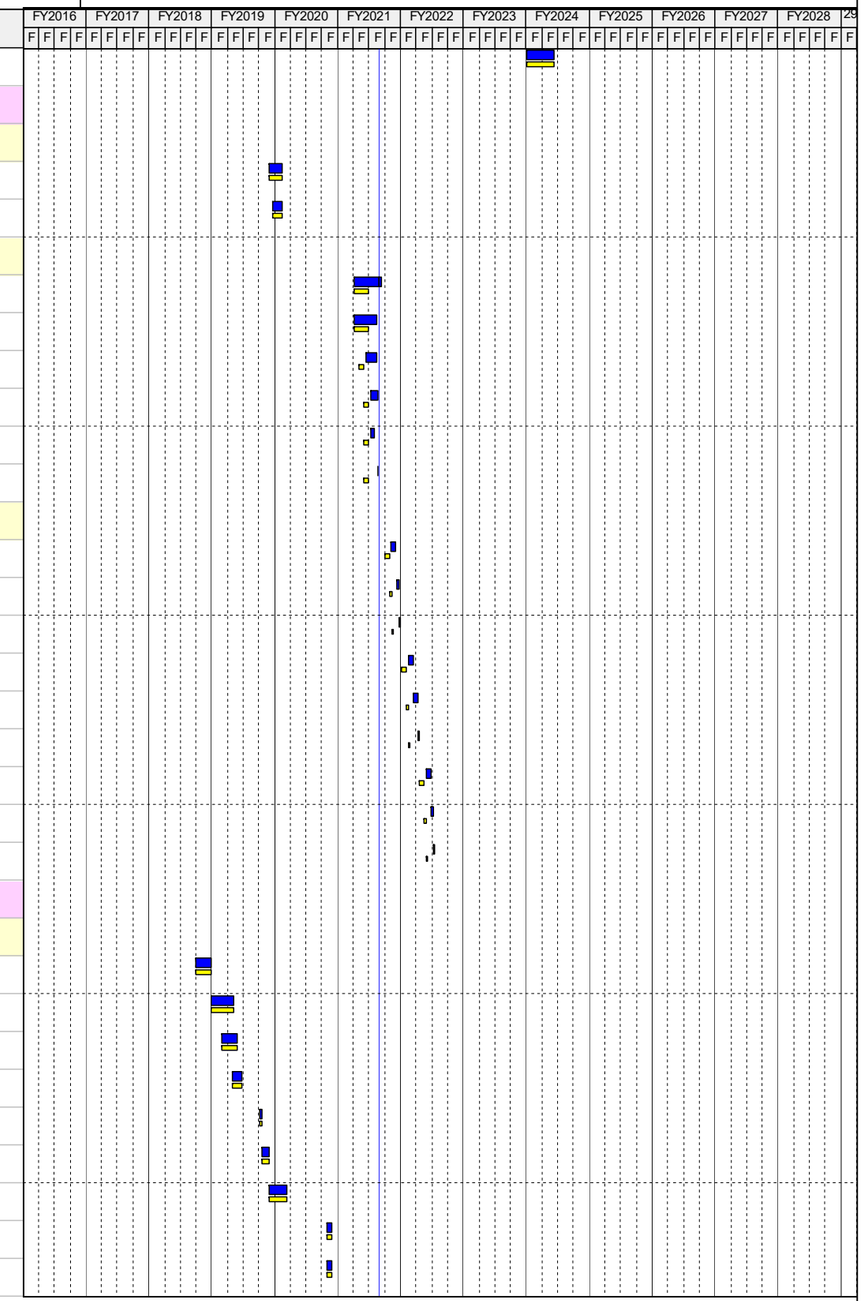
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P382I366	LLRF & HPRF Load Testing (Phase 1)	09-Aug-22	15-Aug-22	09-Aug-22	15-Aug-22	0%	5	$7,512	Karen White
P382I336	LLRF SW integration testing CM 31 & 32	27-Sep-22	03-Oct-22	27-Sep-22	03-Oct-22	0%	5	$3,028	Karen White
P.03.08.02.04.2	Phase 2 Installation	26-Jan-22	12-Apr-23	03-Dec-21	26-Apr-23		301	$68,836	
P382i161	LLRF Controls SW configuration for XMTR-28 and 27 (Phase 2)	26-Jan-22	22-Mar-22	03-Dec-21	08-Feb-22	0%	40	$36,056	Karen White
P382i770	HPRF SW deployment XMTR-28 and 27	06-Apr-22	04-May-22	14-Mar-22	08-Apr-22	0%	20	$9,014	Karen White
P382i201	HPRF SW deployment HVCM 28	04-Aug-22	31-Aug-22	04-Aug-22	31-Aug-22	0%	20	$9,014	Karen White
P382I351	HPRF and HVCM integration testing SCL-MOD-28	06-Sep-22	03-Oct-22	06-Sep-22	03-Oct-22	0%	20	$2,258	Karen White
P382I367	LLRF & HPRF Load Testing (Phase 2)	21-Nov-22	29-Nov-22	21-Nov-22	29-Nov-22	0%	5	$7,809	Karen White
P382I331	LLRF SW integration testing CM 30, 29 and 28	05-Apr-23	12-Apr-23	20-Apr-23	26-Apr-23	0%	5	$4,685	Karen White
P.03.08.02.04.3	Phase 3 Installation	27-Apr-22	08-May-24	15-Mar-22	08-May-24		503	$50,121	
P382i151	LLRF Controls SW configuration for XMTR-25 (Phase 3)	27-Apr-22	24-May-22	15-Mar-22	11-Apr-22	0%	20	$18,028	Karen White
P382i780	HPRF SW deployment XMTR-25	03-May-22	31-May-22	25-Apr-22	20-May-22	0%	20	$9,014	Karen White
P382i196	HPRF SW deployment HVCM 25	19-Oct-22	15-Nov-22	19-Oct-22	15-Nov-22	0%	20	$9,371	Karen White
P382I346	HPRF and HVCM integration testing SCL-MOD-25	18-Nov-22	19-Dec-22	18-Nov-22	19-Dec-22	0%	20	$2,343	Karen White
P382I368	LLRF & HPRF Load Testing (Phase 3)	07-Nov-23	13-Nov-23	07-Nov-23	13-Nov-23	0%	5	$8,118	Karen White
P382I316	LLRF SW integration testing CM 27 and 25	02-May-24	08-May-24	02-May-24	08-May-24	0%	5	$3,247	Karen White
P.03.08.03	Linac Water System Controls	26-Nov-18 A	10-Dec-21	26-Nov-18	10-Dec-21		34	$5,828	
P.03.08.03.02	Design - Linac Water System Controls -(NEP38320)	26-Nov-18 A	30-Nov-18 A	26-Nov-18	30-Nov-18		0	$0	
P383D71	KL04 Controls: Design	26-Nov-18 A	30-Nov-18 A	26-Nov-18	30-Nov-18	100%	0	$0	Karen White
P.03.08.03.04	Installation - Linac Water System Controls	22-Oct-21	10-Dec-21	22-Oct-21	10-Dec-21		34	$5,828	
P383I148	KL04 Controls: PLC and EPICS Integration	22-Oct-21	28-Oct-21	22-Oct-21	28-Oct-21	0%	5	$4,371	Karen White
P383I158	KL04 Controls: Installation Support	06-Dec-21	10-Dec-21	06-Dec-21	10-Dec-21	0%	5	$1,457	Karen White
P.03.09	RF/SCL Global Controls	03-Oct-16 A	06-May-24	03-Oct-16	06-May-24		724	$458,354	
P.03.09.01	Management and System Integration - RF/SCL Global Controls	03-Oct-16 A	07-Mar-24	03-Oct-16	07-Mar-24		683	$128,050	
P.03.09.01.01	Management and System Integration - RF/SCL Global Controls - (NEP39110)	03-Oct-16 A	07-Mar-24	03-Oct-16	07-Mar-24		683	$128,050	
P391M1	WBS Management P.3.9 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Karen White
P391M35	CAM L3/L4 Management P.3.9.2 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Karen White
P391M51	CAM L3/L4 Management P.3.9.3 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Karen White
P391M65	CAM L3/L4 Management P.3.9.4 FY17	03-Oct-16 A	29-Sep-17 A	03-Oct-16	29-Sep-17	100%	0	$0	Karen White
P391M4	WBS Management P.3.9 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Karen White
P391M36	CAM L3/L4 Management P.3.9.2 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Karen White
P391M52	CAM L3/L4 Management P.3.9.3 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Karen White
P391M66	CAM L3/L4 Management P.3.9.4 FY18 (Oct through Feb)	02-Oct-17 A	01-May-18 A	02-Oct-17	01-May-18	100%	0	$0	Karen White



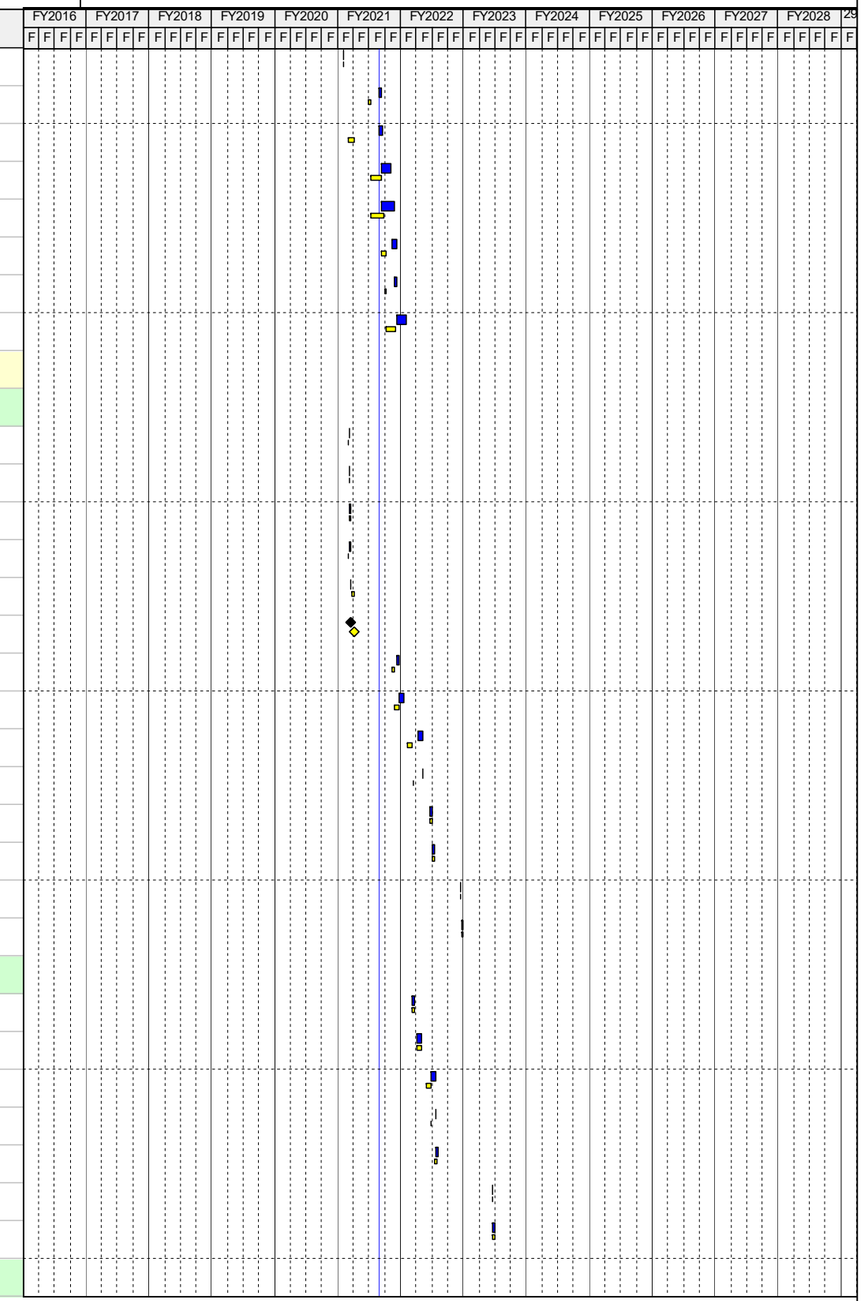
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P391M6	WBS Management P.3.9 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Karen White
P391M39	CAM L3/L4 Management P.3.9.2 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Karen White
P391M53	CAM L3/L4 Management P.3.9.3 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Karen White
P391M67	CAM L3/L4 Management P.3.9.4 FY18 (May through Sep)	01-May-18 A	28-Sep-18 A	01-May-18	28-Sep-18	100%	0	$0	Karen White
P391M11	WBS Management P.3.9 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Karen White
P391M55	CAM L3/L4 Management P.3.9.3 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Karen White
P391M69	CAM L3/L4 Management P.3.9.4 FY19 (LOE)	01-Oct-18 A	29-Mar-19 A	01-Oct-18	29-Mar-19	100%	0	$0	Karen White
P391M55B	CAM L3/L4 Management P.3.9.3 FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Karen White
P391M69B	CAM L3/L4 Management P.3.9.4 FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Karen White
P391M11B	WBS Management P.3.9 FY19 (LOE) - Continued	01-Apr-19 A	30-Aug-19 A	01-Apr-19	30-Aug-19	100%	0	$0	Karen White
P391M11C	WBS Management P.3.9 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Karen White
P391M55C	CAM L3/L4 Management P.3.9.3 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Karen White
P391M69C	CAM L3/L4 Management P.3.9.4 FY19 (LOE) - (Sep19 Only)	03-Sep-19 A	30-Sep-19 A	03-Sep-19	30-Sep-19	100%	0	$0	Karen White
P391M16	WBS Management P.3.9 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Karen White
P391M43	CAM L3/L4 Management P.3.9.2 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Karen White
P391M57	CAM L3/L4 Management P.3.9.3 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Karen White
P391M71	CAM L3/L4 Management P.3.9.4 FY20 (LOE) (Oct19 - Mar20)	01-Oct-19 A	31-Mar-20 A	01-Oct-19	31-Mar-20	100%	0	$0	Karen White
P391M16a	WBS Management P.3.9 FY20a (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Karen White
P391M71a	CAM L3/L4 Management P.3.9.4 FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Karen White
P391M57a	CAM L3/L4 Management P.3.9.3 FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Karen White
P391M43a	CAM L3/L4 Management P.3.9.2 FY20 (LOE) (Apr20 - Sep20)	01-Apr-20 A	30-Sep-20 A	01-Apr-20	30-Sep-20	100%	0	$0	Karen White
P391M21	WBS Management P.3.9 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Karen White
P391M45	CAM L3/L4 Management P.3.9.2 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Karen White
P391M59	CAM L3/L4 Management P.3.9.3 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Karen White
P391M73	CAM L3/L4 Management P.3.9.4 FY21 (LOE) Part 1 (Oct20 Only)	01-Oct-20 A	30-Oct-20 A	01-Oct-20	30-Oct-20	100%	0	$0	Karen White
P391M21a	WBS Management P.3.9 FY21 (LOE) Part 2 (Nov20 - Feb21	02-Nov-20 A	01-Mar-21 A	02-Nov-20	26-Feb-21	100%	0	$17,213	Karen White
P391M45a	CAM L3/L4 Management P.3.9.2 FY21 (LOE) Part 2 (Nov20 - Feb21)	02-Nov-20 A	01-Mar-21 A	02-Nov-20	26-Feb-21	100%	0	$3,622	Karen White
P391M73a	CAM L3/L4 Management P.3.9.4 FY21 (LOE) Part 2 (Nov20 - Feb21)	02-Nov-20 A	01-Mar-21 A	02-Nov-20	26-Feb-21	100%	0	$3,622	Karen White
P391M59a	CAM L3/L4 Management P.3.9.3 FY21 (LOE) Part 2 (Nov20 - Feb21)	02-Nov-20 A	01-Mar-21 A	02-Nov-20	26-Feb-21	100%	0	$5,452	Karen White
P391M21b	WBS Management P.3.9 FY21 (LOE) Part 3 (Mar21 - Sep21)	01-Mar-21 A	30-Sep-21	01-Mar-21	30-Sep-21	42.67%	86	$37,020	Karen White
P391M26	WBS Management P.3.9 FY22 (LOE)	01-Oct-21	30-Sep-22	01-Oct-21	30-Sep-22	0%	247	$42,794	Karen White
P391MS01	RF/SCL Global Controls Installation Complete (MS)		19-Aug-22		19-Aug-22	0%	0	$0	Karen White
P391M28	WBS Management P.3.9 FY23 (LOE)	03-Oct-22	29-Sep-23	03-Oct-22	29-Sep-23	0%	245	$13,142	Karen White



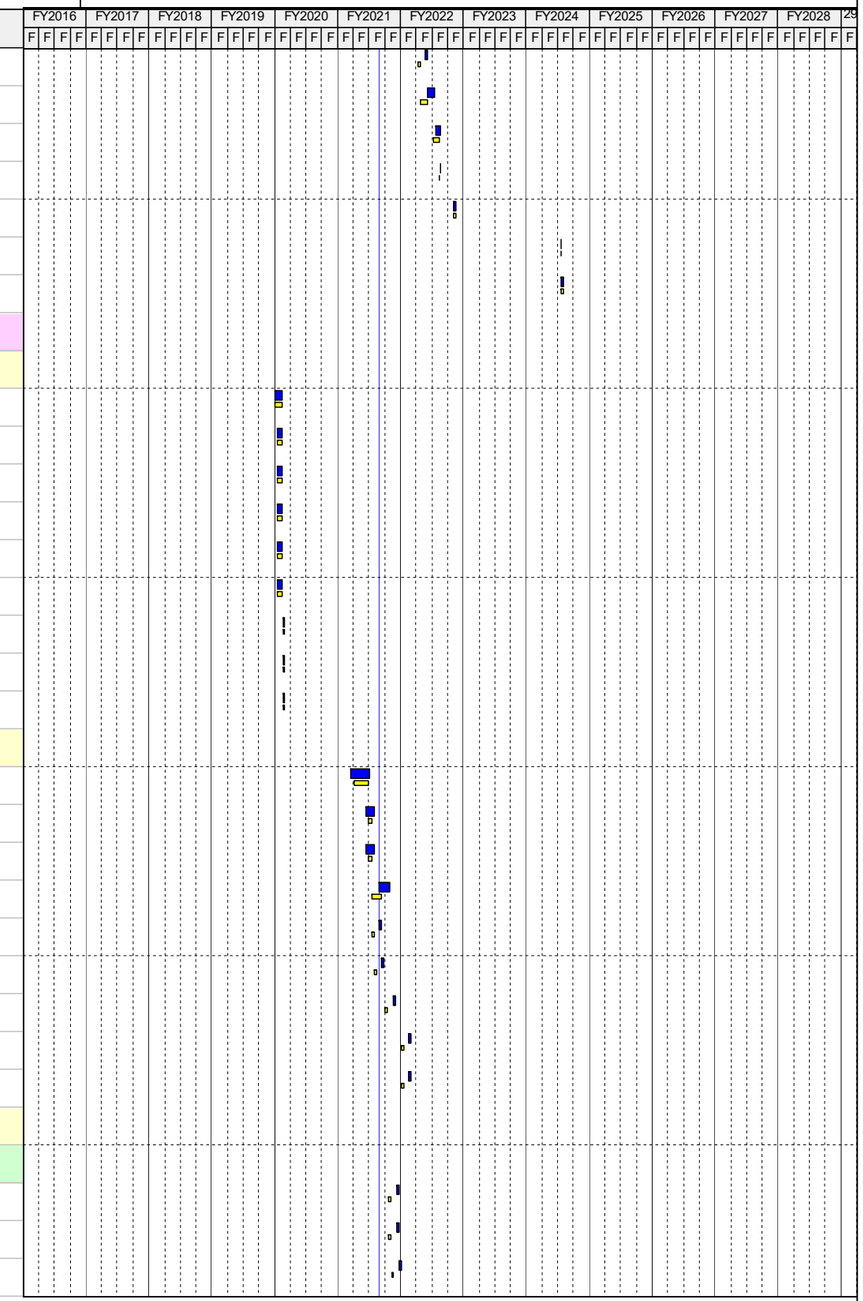
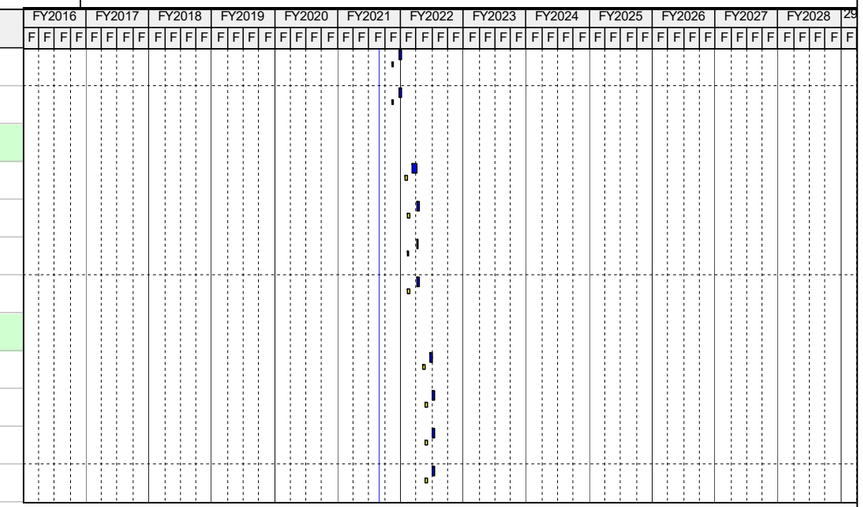
Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P391M30	WBS Management P.3.9 FY24 (LOE)	02-Oct-23	07-Mar-24	02-Oct-23	07-Mar-24	0%	105	$5,184	Karen White
P.03.09.02 Linac/SCL Timing/MPS		03-Sep-19 A	19-Apr-22	03-Sep-19	07-Mar-22		218	$77,315	
P.03.09.02.02 Design - Linac/SCL Timing/MPS - (NEP39220)		03-Sep-19 A	15-Nov-19 A	03-Sep-19	15-Nov-19		0	$0	
P392D36	Revise timing link signal distribution schematic drawings	03-Sep-19 A	15-Nov-19 A	03-Sep-19	15-Nov-19	100%	0	$0	Karen White
P392D91	Revise MPS installation schematic drawings	19-Sep-19 A	15-Nov-19 A	19-Sep-19	15-Nov-19	100%	0	$0	Karen White
P.03.09.02.03 Procure/Fab - Linac/SCL Timing/MPS - (NEP39231)		04-Jan-21 A	14-Jun-21	04-Jan-21	29-Mar-21		10	$26,698	
P392P142	Procure and receive ICS Global Controls cables (Bluehose, Timing fibers, MPS Fibers, MPS Copper)	04-Jan-21 A	14-Jun-21	04-Jan-21	29-Mar-21	66%	10	$9,533	Karen White
P392P806	Procure and Receive ICS cable ends for Phase 1 (fiber and copper)	04-Jan-21 A	14-May-21 A	04-Jan-21	29-Mar-21	100%	0	$2,027	Karen White
P392P46	Test timing hardware (Timing Receiver Cards, HVCM fiber fan-out modules, timing link fan-outs)	12-Mar-21 A	14-May-21 A	01-Feb-21	26-Feb-21	100%	0	$9,174	Karen White
P392P101	Assemble transition board assemblies	15-Apr-21 A	21-May-21 A	01-Mar-21	26-Mar-21	100%	0	$2,294	Karen White
P392P106	Assemble terminal block assemblies	15-Apr-21 A	30-Apr-21 A	01-Mar-21	26-Mar-21	100%	0	$2,523	Karen White
P392P111	Test new MPS nodes	24-May-21 A	24-May-21 A	01-Mar-21	26-Mar-21	100%	0	$1,147	Karen White
P.03.09.02.04 Installation - Linac/SCL Timing/MPS - (NEP39240)		03-Aug-21	19-Apr-22	02-Jul-21	07-Mar-22		174	$50,617	
P392i126	Install HVCM EPICS software Phase 1	03-Aug-21	30-Aug-21	02-Jul-21	30-Jul-21	0%	20	$6,424	Karen White
P392I146	MPS and Timing node installation Phase 1	08-Sep-21	21-Sep-21	02-Aug-21	13-Aug-21	0%	10	$8,191	Karen White
P392I76	MPS and Timing system interface start-up and troubleshooting, Phase 1	22-Sep-21	28-Sep-21	16-Aug-21	20-Aug-21	0%	5	$1,835	Karen White
P392i131	Install HVCM EPICS software Phase 2	17-Nov-21	16-Dec-21	06-Oct-21	02-Nov-21	0%	20	$6,676	Karen White
P392I151	MPS and Timing node installation Phase 2	17-Dec-21	10-Jan-22	03-Nov-21	16-Nov-21	0%	10	$8,504	Karen White
P392I81	MPS and Timing system interface start-up and troubleshooting, Phase 2	11-Jan-22	18-Jan-22	17-Nov-21	23-Nov-21	0%	5	$1,904	Karen White
P392i136	Install HVCM EPICS software Phase 3	01-Mar-22	28-Mar-22	18-Jan-22	14-Feb-22	0%	20	$6,676	Karen White
P392I156	MPS and Timing node installation Phase 3	29-Mar-22	11-Apr-22	15-Feb-22	28-Feb-22	0%	10	$8,504	Karen White
P392I86	MPS and Timing system interface start-up and troubleshooting, Phase 3	12-Apr-22	19-Apr-22	01-Mar-22	07-Mar-22	0%	5	$1,904	Karen White
P.03.09.03 Linac/SCL Protection System		02-Jul-18 A	06-May-24	02-Jul-18	06-May-24		724	$129,217	
P.03.09.03.02 Design - Linac/SCL Protection System - (NEP39320)		02-Jul-18 A	02-Nov-21	02-Jul-18	03-Sep-21		109	$39,927	
P393D166	Design PPS-HVCM Interface - Part 1	02-Jul-18 A	28-Sep-18 A	02-Jul-18	28-Sep-18	100%	0	$0	Karen White
P393D166B	Design PPS-HVCM Interface - Continued 90%	01-Oct-18 A	04-Feb-19 A	01-Oct-18	04-Feb-19	100%	0	$0	Karen White
P393D46	Design PPS-RF XMTR Interface	30-Nov-18 A	28-Feb-19 A	30-Nov-18	28-Feb-19	100%	0	$0	Karen White
P393D56	Internal Design Reviews	01-Feb-19 A	29-Mar-19 A	01-Feb-19	29-Mar-19	100%	0	$0	Karen White
P393D56B	Internal Design Reviews - Continued	08-Jul-19 A	18-Jul-19 A	08-Jul-19	18-Jul-19	100%	0	$0	Karen White
P393D71	Revise Requirements and Specifications	19-Jul-19 A	30-Aug-19 A	19-Jul-19	30-Aug-19	100%	0	$0	Karen White
P393D71b	Revise Requirements and Specifications - Continued	03-Sep-19 A	11-Dec-19 A	03-Sep-19	11-Dec-19	100%	0	$0	Karen White
P393D510	Procure Parts and Assemble Interface Chassis Test Fixture	03-Aug-20 A	28-Aug-20 A	03-Aug-20	28-Aug-20	100%	0	$0	Karen White
P393D520	Adjustment for previous Design PPU Scope of CAB04 Cabinet	03-Aug-20 A	31-Aug-20 A	03-Aug-20	31-Aug-20	100%	0	$0	Karen White



Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P393D87	Correction of erroneous charges in October 2020	02-Nov-20 A	02-Nov-20 A	02-Nov-20	02-Nov-20	100%	0	($4,892)	Karen White
P393D86	Design Linac SW Revision	01-Jun-21*	11-Jun-21	01-Apr-21	14-Apr-21	0%	9	$2,348	Karen White
P393D550	Update Linac PPS Certification Procedure to add PPS Scope of CAB 04	01-Jun-21	22-Jun-21	30-Nov-20	07-Jan-21	0%	16	$1,403	Karen White
P393D91	Test Linac SW Updates	14-Jun-21	09-Aug-21	15-Apr-21	10-Jun-21	0%	40	$3,468	Karen White
P393D530	Prepare CAB04 Software Modifications (PPU Scope)	14-Jun-21	26-Aug-21	15-Apr-21	29-Jun-21	0%	53	$17,973	Karen White
P393D156	Review/Update Certification Procedures	10-Aug-21	07-Sep-21	11-Jun-21	09-Jul-21	0%	20	$1,920	Karen White
P393D540	Review CAB04 Software Modifications (PPU Scope)	27-Aug-21	08-Sep-21	30-Jun-21	12-Jul-21	0%	8	$3,855	Karen White
P393D136	Complete Change Documentation Process.	08-Sep-21	02-Nov-21	12-Jul-21	03-Sep-21	0%	40	$13,853	Karen White
P.03.09.03.04	Installation - Linac/SCL Protection System - (NEP39340)	07-Dec-20 A	06-May-24	30-Nov-20	06-May-24		654	$89,290	
P.03.09.03.04.01	Phase 1 Installation	07-Dec-20 A	30-Sep-22	30-Nov-20	30-Sep-22		263	$60,728	
P393i510	Remove Existing CAB04 (PPU Scope)	07-Dec-20 A	10-Dec-20 A	01-Dec-20	04-Dec-20	100%	0	$6,815	Karen White
P393i520	Install PPU Scope of CAB04 Replacement	07-Dec-20 A	08-Dec-20 A	07-Dec-20	08-Dec-20	100%	0	$5,191	Karen White
P393i530	Terminate Cables PPU Scope of CAB04 Replacement	09-Dec-20 A	15-Dec-20 A	09-Dec-20	18-Dec-20	100%	0	$7,890	Karen White
P393i500	Modify 4 Beam Shudown Stations	11-Dec-20 A	14-Dec-20 A	30-Nov-20	04-Dec-20	100%	0	$1,689	Karen White
P393i540	Field Checkout PPU Scope of CAB04 Replacement	16-Dec-20 A	18-Dec-20 A	21-Dec-20	08-Jan-21	100%	0	$24,274	Karen White
P393i550	Cab04 Ready for Certification (PPU Scope)		18-Dec-20 A		08-Jan-21	100%	0	$0	Karen White
P393I141	Create Installation Work Packages for RF/SCL PPS (Phase 1)	09-Sep-21	22-Sep-21	11-Aug-21	24-Aug-21	0%	10	$1,358	Karen White
P393I106	Install HVCM PPS Interface Chassis (Phase 1) (For SCR Cabinet)	23-Sep-21	20-Oct-21	25-Aug-21	22-Sep-21	0%	20	$1,276	Karen White
P393I111	Install RF XMTR PPS Interface Chassis (Phase 1)	12-Jan-22	09-Feb-22	11-Nov-21	10-Dec-21	0%	20	$1,290	Karen White
P393I146	Terminate Cables PPS (Phase 1)	10-Feb-22	10-Feb-22	13-Dec-21	13-Dec-21	0%	1	$1,986	Karen White
P393I116	Install Linac PPS PLC SW (Phase 1)	21-Mar-22	01-Apr-22	21-Mar-22	01-Apr-22	0%	10	$915	Karen White
P393I121	PPS Integration Tests (Phase 1)	04-Apr-22	18-Apr-22	04-Apr-22	18-Apr-22	0%	10	$3,529	Karen White
P393I126	PPS Certification (Phase 1)	15-Sep-22	16-Sep-22	15-Sep-22	16-Sep-22	0%	2	$3,428	Karen White
P393I131	Update Documentation to As-Built (Phase 1)	19-Sep-22	30-Sep-22	19-Sep-22	30-Sep-22	0%	10	$1,086	Karen White
P.03.09.03.04.02	Phase 2 Installation	09-Dec-21	04-Apr-23	09-Dec-21	04-Apr-23		322	$14,192	
P393I171	Create Installation Work Packages for RF/SCL PPS (Phase 2)	09-Dec-21	22-Dec-21	09-Dec-21	22-Dec-21	0%	10	$1,409	Karen White
P393I191	Install HVCM PPS Interface Chassis (Phase 2) (For SCR Cabinet)	03-Jan-22	31-Jan-22	03-Jan-22	31-Jan-22	0%	20	$1,290	Karen White
P393I211	Install RF XMTR PPS Interface Chassis (Phase 2)	25-Mar-22	22-Apr-22	02-Mar-22	29-Mar-22	0%	20	$1,290	Karen White
P393I241	Terminate Cables PPS (Phase 2)	25-Apr-22	25-Apr-22	30-Mar-22	30-Mar-22	0%	1	$1,986	Karen White
P393I231	PPS Integration Tests (Phase 2)	26-Apr-22	04-May-22	19-Apr-22	28-Apr-22	0%	9	$3,529	Karen White
P393I276	PPS Post Maintenance Test (Phase 2) Same Logic as Phase 1 PPS Cert	20-Mar-23	21-Mar-23	20-Mar-23	21-Mar-23	0%	2	$3,559	Karen White
P393I261	Update Documentation to As-Built (Phase 2)	22-Mar-23	04-Apr-23	22-Mar-23	04-Apr-23	0%	10	$1,127	Karen White
P.03.09.03.04.03	Phase 3 Installation	23-Feb-22	06-May-24	11-Jan-22	06-May-24		545	$14,371	



Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P393I176	Create Installation Work Packages for RF/SCL PPS (Phase 3)	23-Feb-22	08-Mar-22	11-Jan-22	25-Jan-22	0%	10	$1,409	Karen White
P393I196	Install HVCM PPS Interface Chassis (Phase 3) (For SCR Cabinet)	09-Mar-22	20-Apr-22	26-Jan-22	08-Mar-22	0%	30	$1,290	Karen White
P393I216	Install RF XMTR PPS Interface Chassis (Phase 3)	22-Apr-22	19-May-22	13-Apr-22	11-May-22	0%	20	$1,290	Karen White
P393I251	Terminate Cables PPS (Phase 3)	20-May-22	20-May-22	12-May-22	12-May-22	0%	1	$1,986	Karen White
P393I236	PPS Integration Tests (Phase 3)	08-Aug-22	19-Aug-22	08-Aug-22	19-Aug-22	0%	10	$3,529	Karen White
P393I286	PPS Post Maintenance Test (Phase 3) Same Logic as Phase 1 PPS Cert	19-Apr-24	22-Apr-24	19-Apr-24	22-Apr-24	0%	2	$3,695	Karen White
P393I266	Update Documentation to As-Built (Phase 3)	23-Apr-24	06-May-24	23-Apr-24	06-May-24	0%	10	$1,171	Karen White
P.03.09.04 Linac/SCL Networking and Computing Infrastructure		01-Oct-19 A	20-Apr-22	01-Oct-19	08-Mar-22		219	$123,773	
P.03.09.04.02 Design - Linac/SCL Networking and Computing Infrastructure - (NEP39420)		01-Oct-19 A	27-Nov-19 A	01-Oct-19	27-Nov-19		0	$0	
P394D36	Comm Room 6 rack layout	01-Oct-19 A	15-Nov-19 A	01-Oct-19	15-Nov-19	100%	0	$0	Karen White
P394D56	Modify rack design SCL_ICS:Cab35S03	15-Oct-19 A	15-Nov-19 A	15-Oct-19	15-Nov-19	100%	0	$0	Karen White
P394D61	Modify rack design SCL_ICS:Cab40S03	15-Oct-19 A	15-Nov-19 A	15-Oct-19	15-Nov-19	100%	0	$0	Karen White
P394D41	Design rack SCL_ICS:Cab51S03	15-Oct-19 A	15-Nov-19 A	15-Oct-19	15-Nov-19	100%	0	$0	Karen White
P394D46	Design rack SCL_ICS:Cab45S03	15-Oct-19 A	15-Nov-19 A	15-Oct-19	15-Nov-19	100%	0	$0	Karen White
P394D51	Modify rack design Comm Room 5	15-Oct-19 A	15-Nov-19 A	15-Oct-19	15-Nov-19	100%	0	$0	Karen White
P394D66	Field cable design for Zone 1	18-Nov-19 A	27-Nov-19 A	18-Nov-19	27-Nov-19	100%	0	$0	Karen White
P394D71	Field cable design for Zone 2	18-Nov-19 A	27-Nov-19 A	18-Nov-19	27-Nov-19	100%	0	$0	Karen White
P394D76	Field cable design for Zone 3	18-Nov-19 A	27-Nov-19 A	18-Nov-19	27-Nov-19	100%	0	$0	Karen White
P.03.09.04.03 Procure/Fab - Linac/SCL Networking and Computing Infrastructure - (NEP39430)		18-Dec-20 A	02-Dec-21	04-Jan-21	19-Oct-21		129	$77,935	
P394P804	Procure and Receive Communication (Network) cables (includes fiber and copper)	18-Dec-20 A	06-Apr-21 A	04-Jan-21	29-Mar-21	100%	0	$6,292	Karen White
P394P96	Procure and Receive Network and rack hardware for SCL_CTL:Cab50S03 (Phase 1)	15-Mar-21 A	30-Apr-21 A	01-Apr-21	15-Apr-21	100%	0	$15,856	Karen White
P394P116	Procure and Receive Network and rack hardware for SCL_CTL:CabCR06S02 (Phase 1)	15-Mar-21 A	30-Apr-21 A	01-Apr-21	15-Apr-21	100%	0	$10,656	Karen White
P394P126	Procure and Receive Computer equipment (PC and monitor)	01-Jun-21*	27-Jul-21	16-Apr-21	11-Jun-21	0%	40	$5,292	Karen White
P394P121	Procure and receive wall mounting hardware for terminals	01-Jun-21	14-Jun-21	16-Apr-21	29-Apr-21	0%	10	$1,957	Karen White
P394P86	Assemble wall terminal, prepare operating system and load EPICS	15-Jun-21	28-Jun-21	30-Apr-21	13-May-21	0%	10	$4,128	Karen White
P394P111	Procure and Receive Network and rack hardware for SCL_CTL:CabCR05S02 (Phase 2)	17-Aug-21	30-Aug-21	06-Jul-21	19-Jul-21	0%	10	$8,598	Karen White
P394P91	Procure and Receive Network and rack hardware for SCL_CTL:Cab44S04 (Phase 3)	17-Nov-21	02-Dec-21	06-Oct-21	19-Oct-21	0%	10	$15,252	Karen White
P394P106	Procure and Receive Network and rack hardware for SCL_CTL:Cab40S03 (Phase 3)	17-Nov-21	02-Dec-21	06-Oct-21	19-Oct-21	0%	10	$9,902	Karen White
P.03.09.04.04 Installation - Linac/SCL Networking and Computing Infrastructure - (NEP39440)		08-Sep-21	20-Apr-22	27-Jul-21	08-Mar-22		150	$45,838	
P.03.09.04.04.01 Phase 1 Installation		08-Sep-21	05-Oct-21	27-Jul-21	23-Aug-21		20	$17,637	
P394I196	Install equipment and patch cables SCL_CTL:CabCR06S02 (Phase 1)	08-Sep-21	21-Sep-21	27-Jul-21	09-Aug-21	0%	10	$1,376	Karen White
P394I191	Install equipment and patch cables SCL_CTL:Cab50S03 (Phase 1)	08-Sep-21	21-Sep-21	27-Jul-21	09-Aug-21	0%	10	$2,752	Karen White
P394I206	Installation supervision for rack Phase 1	22-Sep-21	05-Oct-21	10-Aug-21	23-Aug-21	0%	10	$4,639	Karen White



Activity ID	Activity Name	Start	Finish	BL Start	BL Finish	% Complete	Rem Dur	Budgeted Total Cost	CAM
P394I211	ICS Networking Installation Phase 1	22-Sep-21	05-Oct-21	10-Aug-21	23-Aug-21	0%	10	$4,639	Karen White
P394I131	Computing integration and testing support for Phase 1	22-Sep-21	05-Oct-21	10-Aug-21	23-Aug-21	0%	10	$4,231	Karen White
P.03.09.04.04.02	Phase 2 Installation	10-Dec-21	18-Jan-22	27-Oct-21	23-Nov-21		20	$15,290	
P394I236	Install equipment and patch cables SCL_CTL:CabCR05S02 (Phase 2)	10-Dec-21	03-Jan-22	27-Oct-21	09-Nov-21	0%	10	$1,428	Karen White
P394I246	Installation supervision for rack Phase 2	04-Jan-22	18-Jan-22	10-Nov-21	23-Nov-21	0%	10	$4,760	Karen White
P394I251	ICS Networking Installation Phase 2	04-Jan-22	10-Jan-22	10-Nov-21	16-Nov-21	0%	5	$4,760	Karen White
P394I136	Computing integration and testing support for Phase 2	04-Jan-22	18-Jan-22	10-Nov-21	23-Nov-21	0%	10	$4,343	Karen White
P.03.09.04.04.03	Phase 3 Installation	23-Mar-22	20-Apr-22	09-Feb-22	08-Mar-22		20	$12,910	
P394I276	Install equipment and patch cables SCL_CTL:Cab40S03 and SCL_CTL:Cab44S04 (Phase 3)	23-Mar-22	05-Apr-22	09-Feb-22	22-Feb-22	0%	10	$1,428	Karen White
P394I286	Installation supervision for rack Phase 3	06-Apr-22	20-Apr-22	23-Feb-22	08-Mar-22	0%	10	$2,380	Karen White
P394I291	ICS Networking Installation Phase 3	06-Apr-22	20-Apr-22	23-Feb-22	08-Mar-22	0%	10	$4,760	Karen White
P394I141	Computing integration and testing support for Phase 3	06-Apr-22	20-Apr-22	23-Feb-22	08-Mar-22	0%	10	$4,343	Karen White