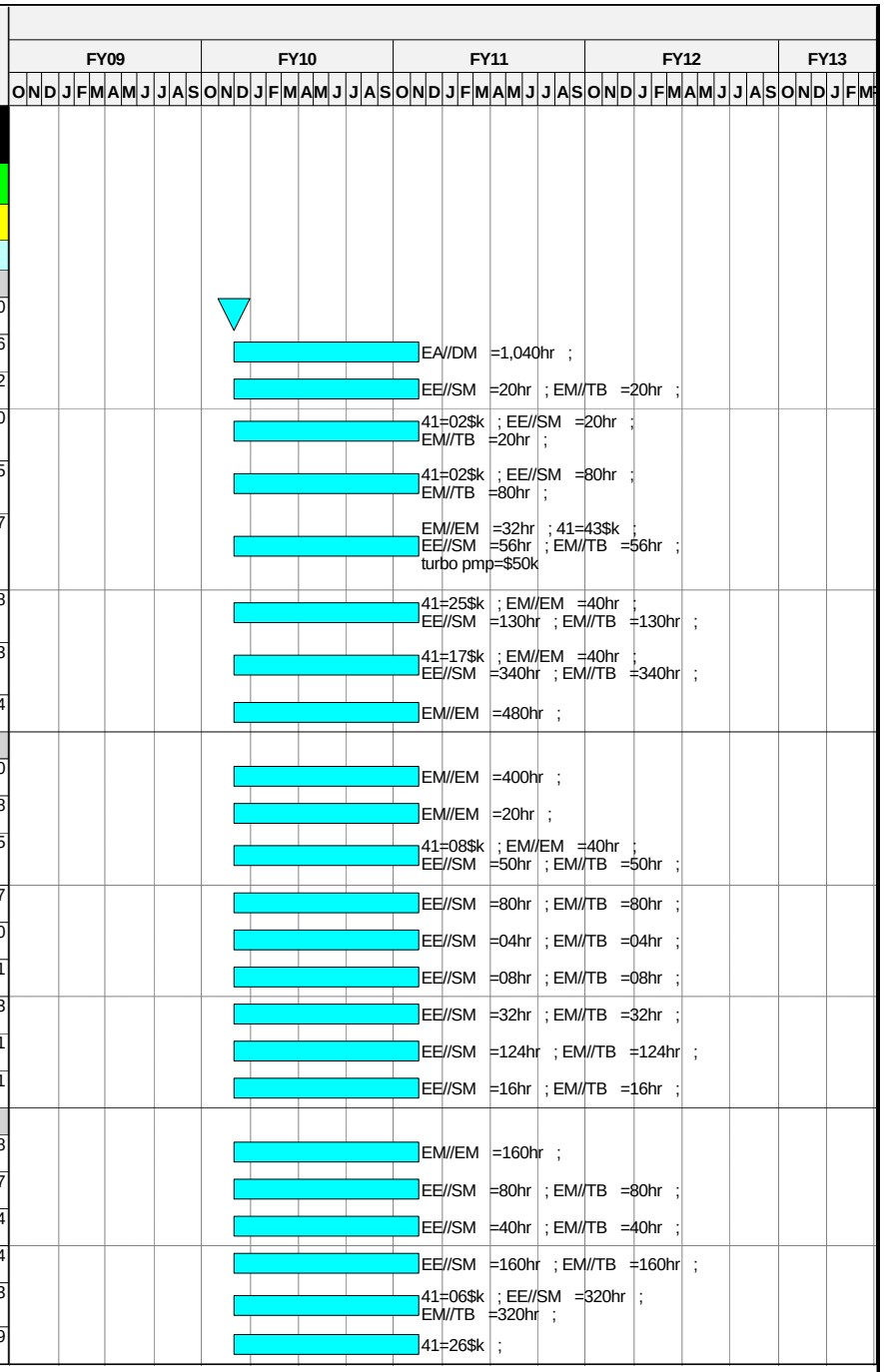
Cost Center 9406 - Facilities Upgrades

2 - Plasma Heating, Fueling & Vac Systems

250 - Neutral Beam Injection System

2505 - Beamline #1 Installation

Activity ID	Activity Description	Forecast Start	Forecast Duration (work days	Forecast Finish	Budget	
Refurbishment**CD-3 deleted scope						
25-000#1	Begin NB#1 Refurb and Installation	01DEC09*	0		0.00	
25-100#1	6) Drafting Support	01DEC09	250	15NOV10	140,176.36	EA//DM =1,040hr ;
25-105#1	7) Refurbish sources	01DEC09	250	15NOV10	4,930.02	EE//SM =20hr ; EM//TB =20hr ;
25-110#1	8) Fabricate and install new filaments	01DEC09*	250	15NOV10	7,872.80	41=02$k ; EE//SM =20hr ; EM//TB =20hr ;
25-115#1	9) Refurbish calorimeters as needed	01DEC09*	250	15NOV10	22,662.85	41=02$k ; EE//SM =80hr ; EM//TB =80hr ;
25-130#1	12) Dsn,Fan,Instl NBI vac sys INCL NEW TURBO PMP	01DEC09*	250	15NOV10	157,104.77	EM//EM =32hr ; 41=43$k ; EE//SM =56hr ; EM//TB =56hr ; turbo pmp=$50k
25-145#1	15)Upgrade/Calibr of telemetry, ptical links etc	01DEC09*	250	15NOV10	76,906.48	41=25$k ; EM//EM =40hr ; EE//SM =130hr ; EM//TB =130hr ;
25-155#1	17) Fab/Instl Front Box Nitrogen Cryopanels.	01DEC09*	250	15NOV10	116,900.53	41=17$k ; EM//EM =40hr ; EE//SM =340hr ; EM//TB =340hr ;
25-175#1	21) Sys Engr & Work Planning Procedures	01DEC09*	250	15NOV10	96,918.84	EM//EM =480hr ;
Re-Install Beamline**CD-3 deleted scope						
25-180#1	31)Work Planning Procedures	01DEC09*	250	15NOV10	80,765.70	EM//EM =400hr ;
25-185#1	32) EAD analysis of platform support capability	01DEC09*	250	15NOV10	4,038.28	EM//EM =20hr ;
25-190#1	33) Fabr BL alignment measur fixture,	01DEC09*	250	15NOV10	32,172.75	41=08$k ; EM//EM =40hr ; EE//SM =50hr ; EM//TB =50hr ;
25-195#1	34) Fabr new bellows/electrical break	01DEC09*	250	15NOV10	19,720.07	EE//SM =80hr ; EM//TB =80hr ;
25-200#1	35) Perform alignment measurements	01DEC09*	250	15NOV10	986.00	EE//SM =04hr ; EM//TB =04hr ;
25-205#1	36) Prepare platform for base plate	01DEC09*	250	15NOV10	1,972.01	EE//SM =08hr ; EM//TB =08hr ;
25-210#1	37) Relocate base plate to NCSX location	01DEC09*	250	15NOV10	7,888.03	EE//SM =32hr ; EM//TB =32hr ;
25-215#1	38) Lift NB from Refurb location to NCSX locatio	01DEC09*	250	15NOV10	30,566.11	EE//SM =124hr ; EM//TB =124hr ;
25-220#1	39) Enclose platform around base plate	01DEC09*	250	15NOV10	3,944.01	EE//SM =16hr ; EM//TB =16hr ;
Re-Install Cables**CD-3 deleted scope						
25-225#1	Cabling-Design & WP Procedures	01DEC09*	250	15NOV10	32,306.28	EM//EM =160hr ;
25-230#1	Cabling-Fabr and Install new Junction Box	01DEC09*	250	15NOV10	19,720.07	EE//SM =80hr ; EM//TB =80hr ;
25-235#1	Cabling-Hi-potting cable run and fixing problems	01DEC09*	250	15NOV10	9,860.04	EE//SM =40hr ; EM//TB =40hr ;
25-240#1	Cabling-Install Cable Trays	01DEC09*	250	15NOV10	39,440.14	EE//SM =160hr ; EM//TB =160hr ;
25-245#1	Cabling-Pull cables Arc Room to PVC Junction Box	01DEC09*	250	15NOV10	87,708.63	41=06$k ; EE//SM =320hr ; EM//TB =320hr ;
25-250#1	Cabling- M&S f/ trays, fixtures, materials	01DEC09*	250	15NOV10	38,256.19	41=26$k ;



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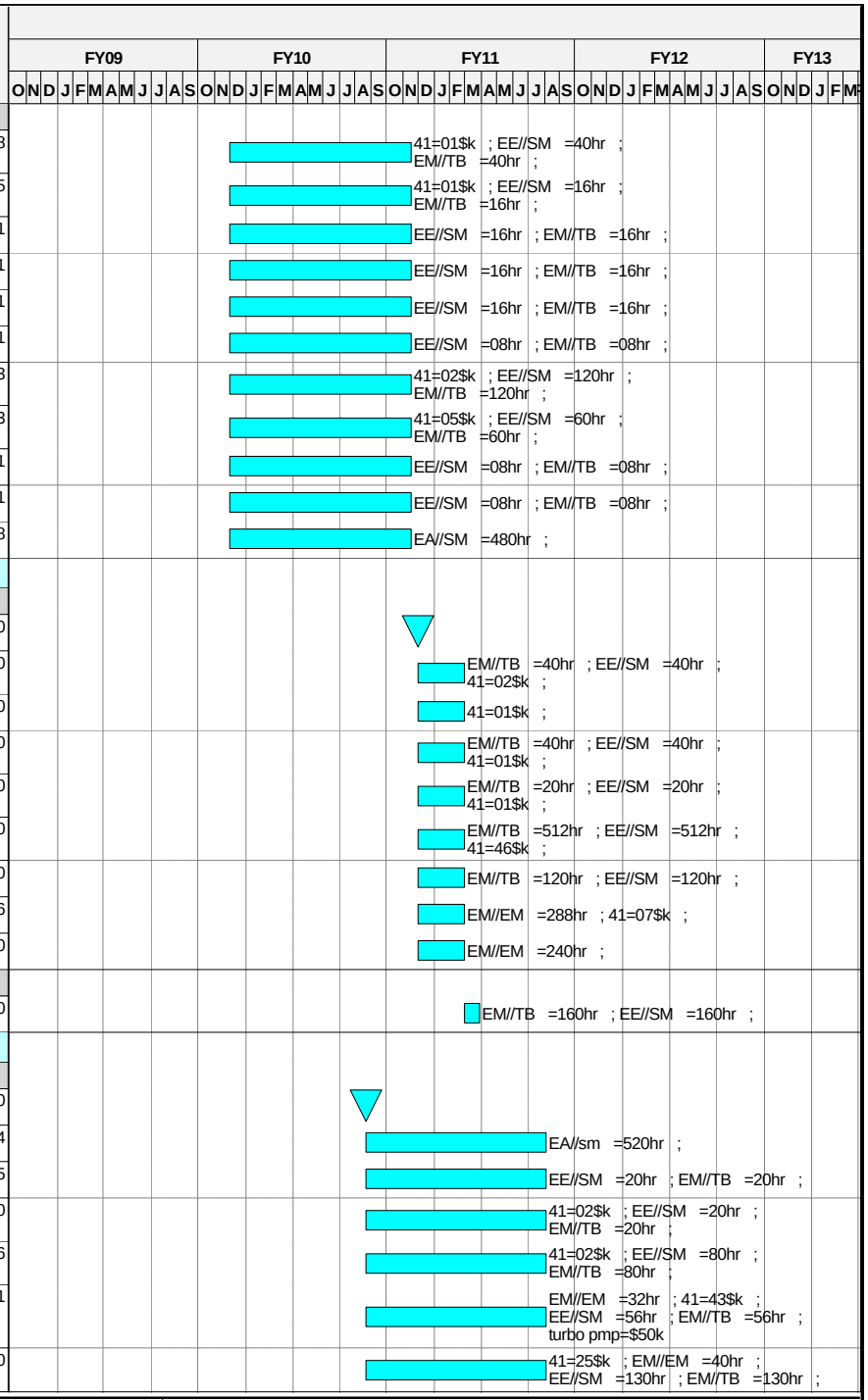
Activity ID	Activity Description	Forecast Start	Forecast Duration (work days	Forecast Finish	Budget
Beamline Connections**CD-3 deleted scope					
25-255#1	Install weld cables Juncton Box to Ion Source.	01DEC09*	250	15NOV10	10,742.88
25-260#1	Connect BL to foreline and exhaust manifold.	01DEC09*	250	15NOV10	4,826.85
25-265#1	New PLC. Test system after installation.	01DEC09*	250	15NOV10	3,944.01
25-270#1	Connect BL to new manifold & test	01DEC09*	250	15NOV10	3,944.01
25-275#1	Connect beamline to new manifold & test.	01DEC09*	250	15NOV10	3,944.01
25-280#1	Connect beamline to new manifold and test	01DEC09*	250	15NOV10	1,972.01
25-285#1	Install Water System	01DEC09*	250	15NOV10	32,670.03
25-290#1	Fab & Install Water Cooled Aperture	01DEC09*	250	15NOV10	22,588.43
25-295#1	New PLC for water sys & test	01DEC09*	250	15NOV10	1,972.01
25-300#1	Diag Sys-Fab/install new cables	01DEC09*	250	15NOV10	1,972.01
25-310#1	Drafting Labor Support	01DEC09*	250	15NOV10	64,696.78
2506 - Beamline #1 Commissioning					
Refurbishment**CD-3 deleted scope					
25-119C#1	Begin Commissioning BL#1	01DEC10*	0		0.00
25-120C#1	10) Maint& repair of cryogenic transfer system.	01DEC10*	65	01MAR11	12,247.20
25-125C#1	11) Fill LN2 supply tank.	01DEC10*	65	01MAR11	1,512.00
25-135C#1	13) Water system maintenance and calibration	01DEC10*	65	01MAR11	11,484.00
25-140C#1	14) Maint/calibration of auxiliary power supplie	01DEC10*	65	01MAR11	6,498.00
25-150C#1	16) New PLC ,Test & Calibrate	01DEC10*	65	01MAR11	194,169.60
25-160C#1	18) Subsystem integrated testing	01DEC10*	65	01MAR11	29,916.00
25-165C#1	19) NBI Computer Systems:	01DEC10*	65	01MAR11	69,744.96
25-170C#1	20) NBI Computer SystemsTune, debug	01DEC10*	65	01MAR11	49,888.80
Beamline Connections**CD-3 deleted scope					
25-305C#1	Neutral Beam Integrated Systems Testing	02MAR11*	20	29MAR11	39,888.00
2507 - Beamline #2 Installation					
Refurbishment**CD-3 deleted scope					
25-000#2	Begin NB#1 Refurb and Installation	23AUG10*	0		0.00
25-100#2	6) Drafting Support	23AUG10*	250	05AUG11	71,884.74
25-105#2	7) Refurbish sources	23AUG10*	250	05AUG11	4,978.55
25-110#2	8) Fabricate and install new filaments	23AUG10*	250	05AUG11	7,866.90
25-115#2	9) Refurbish calorimeters as needed	23AUG10*	250	05AUG11	22,802.56
25-130#2	12) Dsn,Fan,Instl NBI vac sys INCL NEW TURBO PMP	23AUG10*	250	05AUG11	154,874.81
25-145#2	15)Upgrade/Calibr of telemetry, ptical links etc	23AUG10*	250	05AUG11	76,748.10



Run Date 09JUL07 15:09

Forecast
Progress Bar
Critical Activity

FWPB

NCSX Program
FWP 08/09
BASE CASE FY09 MIE=14.7

Sheet 2 of 4

Base case

Guidance= FY09=20 (mie=14.7)
FY10=22.5
FY11=45.2

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Activity ID	Activity Description	Forecast Start	Forecast Duration (work days	Forecast Finish	Budget	FY09	FY10	FY11	FY12	FY13
						O N D J F M A M J J A S	O N D J F M A M J J A S	O N D J F M A M J J A S	O N D J F M A M J J A S	O N D J F M
25-155#2	17) Fab/Instl Front Box Nitrogen Cryopanels.	23AUG10*	250	05AUG11	117,469.50			41=17$k ; EM//EM =40hr ; EE//SM =340hr ; EM//TB =340hr ;		
25-175#2	21) Sys Engr & Work Planning Procedures	23AUG10*	250	05AUG11	49,698.65			EM//EM =240hr ;		
Re-Install Beamline**CD-3 deleted scope										
25-180#2	31)Work Planning Procedures	23AUG10*	250	05AUG11	82,831.09			EM//EM =400hr ;		
25-185#2	32) EAD analysis of platform support capability	23AUG10*	250	05AUG11	0.00			EM//EM = 0 hr ;		
25-190#2	33) Fabr BL alignment measur fixture,	23AUG10*	250	05AUG11	32,282.90			41=08$k ; EM//EM =40hr ; EE//SM =50hr ; EM//TB =50hr ;		
25-195#2	34) Fabr new bellows/electrical break	23AUG10*	250	05AUG11	19,914.21			EE//SM =80hr ; EM//TB =80hr ;		
25-200#2	35) Perform alignment measurements	23AUG10*	250	05AUG11	995.71			EE//SM =04hr ; EM//TB =04hr ;		
25-205#2	36) Prepare platform for base plate	23AUG10*	250	05AUG11	1,991.42			EE//SM =08hr ; EM//TB =08hr ;		
25-210#2	37) Relocate base plate to NCSX location	23AUG10*	250	05AUG11	7,965.68			EE//SM =32hr ; EM//TB =32hr ;		
25-215#2	38) Lift NB from Refurb location to NCSX locatio	23AUG10*	250	05AUG11	30,867.03			EE//SM =124hr ; EM//TB =124hr ;		
25-220#2	39) Enclose platform around base plate	23AUG10*	250	05AUG11	3,982.84			EE//SM =16hr ; EM//TB =16hr ;		
Re-Install Cables**CD-3 deleted scope										
25-225#2	Cabling-Design & WP Procedures	23AUG10*	250	05AUG11	33,132.44			EM//EM =160hr ;		
25-230#2	Cabling-Fabr and Install new Junction Box	23AUG10*	250	05AUG11	19,914.21			EE//SM =80hr ; EM//TB =80hr ;		
25-235#2	Cabling-Hi-potting cable run and fixing problems	23AUG10*	250	05AUG11	9,957.11			EE//SM =40hr ; EM//TB =40hr ;		
25-240#2	Cabling-Install Cable Trays	23AUG10*	250	05AUG11	39,828.42			EE//SM =160hr ; EM//TB =160hr ;		
25-245#2	Cabling-Pull cables Arc Room to PVC Junction Box	23AUG10*	250	05AUG11	88,321.90			41=06$k ; EE//SM =320hr ; EM//TB =320hr ;		
25-250#2	Cabling- M&S f/ trays, fixtures, materials	23AUG10*	250	05AUG11	37,548.58			41=26$k ;		
Beamline Connections**CD-3 deleted scope										
25-255#2	Install weld cables Juncton Box to Ion Source.	23AUG10*	250	05AUG11	10,823.62			41=01$k ; EE//SM =40hr ; EM//TB =40hr ;		
25-260#2	Connect bBL to foreline and exhaust manifold.	23AUG10*	250	05AUG11	4,849.35			41=01$k ; EE//SM =16hr ; EM//TB =16hr ;		
25-265#2	New PLC. Test system after installation.	23AUG10*	250	05AUG11	3,982.84			EE//SM =16hr ; EM//TB =16hr ;		
25-270#2	Connect BL to new manifold & test	23AUG10*	250	05AUG11	3,982.84			EE//SM =16hr ; EM//TB =16hr ;		
25-275#2	Connect beamline to new manifold & test.	23AUG10*	250	05AUG11	3,982.84			EE//SM =16hr ; EM//TB =16hr ;		
25-280#2	Connect beamline to new manifold and test	23AUG10*	250	05AUG11	1,991.42			EE//SM =08hr ; EM//TB =08hr ;		
25-285#2	Install Water System	23AUG10*	250	05AUG11	32,904.09			41=02$k ; EE//SM =120hr ; EM//TB =120hr ;		
25-290#2	Fab & Install Water Cooled Aperture	23AUG10*	250	05AUG11	22,589.79			41=05$k ; EE//SM =60hr ; EM//TB =60hr ;		
25-295#2	New PLC for water sys & test	23AUG10*	250	05AUG11	1,991.42			EE//SM =08hr ; EM//TB =08hr ;		
25-300#2	Diag Sys-Fab/install new cables	23AUG10*	250	05AUG11	1,991.42			EE//SM =08hr ; EM//TB =08hr ;		
25-310#2	Drafting Labor Support	23AUG10*	250	05AUG11	66,355.14			EA//sm =480hr ;		
2508 - Beamline #2 Commissioning										
Refurbishment**CD-3 deleted scope										
25-119C#2	Begin Commissioning BL#2	01JUN12*	0		0.00					
25-120C#2	10) Maint& repair of cryogenic transfer system.	01JUN12*	65	30AUG12	12,247.20			EM//TB =40hr ; EE//SM =40hr ; 41=02$k ;		

Run Date 09JUL07 15:09

Forecast
Progress Bar
Critical Activity

FWPB

NCSX Program
FWP 08/09
BASE CASE FY09 MIE=14.7

Base case

Guidance= FY09=20 (mie=14.7)
FY10=22.5
FY11=45.2

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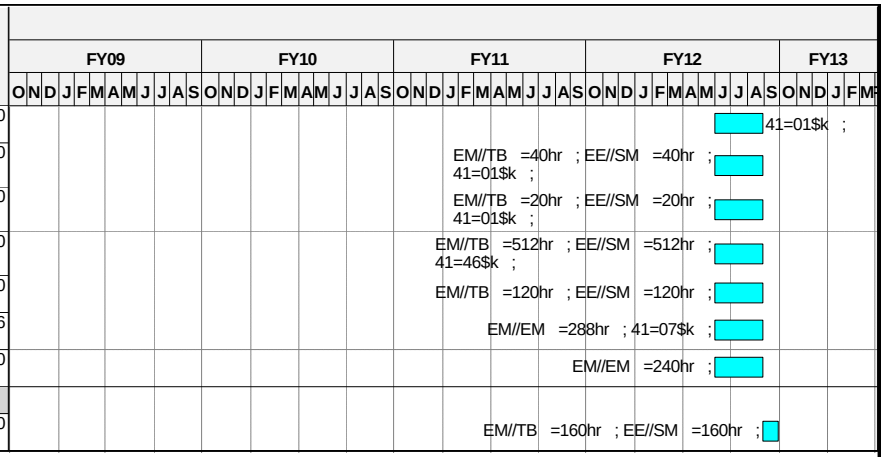
Activity ID	Activity Description	Forecast Start	Forecast Duration (work days	Forecast Finish	Budget
25-125C#2	11) Fill LN2 supply tank.	01JUN12*	65	30AUG12	1,512.00
25-135C#2	13) Water system maintenance and calibration	01JUN12*	65	30AUG12	11,484.00
25-140C#2	14) Maint/calibration of auxiliary power supplie	01JUN12*	65	30AUG12	6,498.00
25-150C#2	16) New PLC ,Test & Calibrate	01JUN12*	65	30AUG12	194,169.60
25-160C#2	18) Subsystem integrated testing	01JUN12*	65	30AUG12	29,916.00
25-165C#2	19) NBI Computer Systems:	01JUN12*	65	30AUG12	69,744.96
25-170C#2	20) NBI Computer SystemsTune, debug	01JUN12*	65	30AUG12	49,888.80
Beamline Connections**CD-3 deleted scope					
25-305C#2	Neutral Beam Integrated Systems Testing	31AUG12*	20	27SEP12	39,888.00



Row	Group Name
1	PPPL
2	ORNL
3	NOVA
4	JHC
5	AUBURN
6	UCLA
7	LLNL
8	COLLAB
9	========
10	TOTAL

FY09 FY10 FY11 FY12 FY13

Run Date 09JUL07 15:09

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Forecast
Progress Bar
Critical Activity

FWPB

NCSX Program
FWP 08/09
BASE CASE FY09 MIE=14.7

Base case

Guidance= FY09=20 (mie=14.7)
FY10=22.5
FY11=45.2