

WBS	Activity ID	Activity Description	Early Start	Early Finish													
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16		
1.8 Test Blanket																	
1.8.1 DCLL System and Testing Goals																	
1.8.1	811415	DCLL Fabrication Contract Awards	02SEP10														
1.8.1	8112101	Preliminary Design Initiated		31MAY06	◆ Preliminary Design Initiated												
1.8.1	8112102	Preliminary Design Midpoint Review		02JUL07*		◆ Preliminary Design Midpoint Review											
1.8.1	8112103	Preliminary Design Review		30JUN08			◆ Preliminary Design Review										
1.8.1	8112113	Select Fabrication Route		31DEC08				◆ Select Fabrication Route									
1.8.1	8112104	Fabrication Bid Package Initiation		28AUG09					◆ Fabrication Bid Package Initiation								
1.8.1	8112105	Detailed Design Final Design Review		01SEP10						◆ Detailed Design Final Design Review							
1.8.1	8112106	Title III Design Review - Initiate Prototype Fab		30JUN11							◆ Title III Design Review - Initiate Prototype Fab						
1.8.1	8112108	Complete Prototype Fabrication		30APR12								◆ Complete Prototype Fabrication					
1.8.1	8112107	Final TBM Design Changes		31DEC12									◆ Final TBM Design Changes				
1.8.1	8112109	Initiate TBM Fabrication		28JUN13										◆ Initiate TBM Fabrication			
1.8.1	8112110	Complete TBM Fabrication		30APR14										◆ Complete TBM Fabrication			
1.8.1	8112111	Complete TBM Acceptance Tests		30JAN15										◆ Complete TBM Acceptance Tests			
1.8.1	8112112	TBM Ready for Shipping		31MAR15										◆ TBM Ready for Shipping			
1.8.1.1 Test Module																	
1.8.1.1	81110050	Begin DCLL Test Module	02JAN06*		◆ Begin DCLL Test Module												
1.8.1.1.1 Administration																	
1.8.1.1.1	81110100	DCLL Administration	02JAN06	20MAR15	▲	DCLL Administration										▼	
1.8.1.1.2 R&D																	
1.8.1.1.2	8112100	Begin DCLL R&D	02JAN06		◆ Begin DCLL R&D												
1.8.1.1.2	8112130	DCLL R&D Complete		30DEC05	◆ DCLL R&D Complete												
1.8.1.1.2.01 Thermofluid MHD																	
1.8.1.1.2.01.01 Modeling Tool Development																	
1.8.1.1.2.01.01	811201100	High Hartman number flows	01MAR06	29JUN07	▲	High Hartman number flows										▼	
1.8.1.1.2.01.01	811201110	Non-orthogonal meshes	01JAN07	30JUN08	▲	Non-orthogonal meshes										▼	
1.8.1.1.2.01.01	811201120	Complex MHD flow and heat transfer	01JAN08	30JUN09	▲	Complex MHD flow and heat transfer										▼	
1.8.1.1.2.01.01	811211COST	Modeling Tool Costs	01MAR06	30JUN09	▲	Modeling Tool Costs										▼	

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:48

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▲ Progress Bar
▲ Critical Activity

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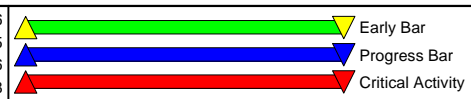
Sheet 1 of 28

ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	Fiscal Year											
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1.8.1.1.2.01.02 Flow Channel Insert Experiments & Modeling																
1.8.1.1.2.01.02	811201200	Sic/Sic FCI test-section fabrication	01AUG07	31JAN08			▲▼									
1.8.1.1.2.01.02	811201210	Experiment 1 - flow development and gap flow	01FEB08	30JUN08			▲▼									
1.8.1.1.2.01.02	811201220	SiC/SiC FCI test-sect w/ press. slots & overlap	01MAY08	29AUG08			▲▼									
1.8.1.1.2.01.02	811201230	Experiment 2 - pressure drop & eq, velocity prof	01SEP08	27FEB09			▲▼									
1.8.1.1.2.01.02	811201240	Loop upgrade-vert magnet orientation & outer wal	02MAR09	30JUN09			▲▼									
1.8.1.1.2.01.02	811201250	Experiment 3 - combined heat transfer effects	01JUL09	29JUN10			▲▼									
1.8.1.1.2.01.02	811212COST	Flow Channel Experiment Costs	01AUG07	29JUN10			▲▼									
1.8.1.1.2.01.03 TBM Manifold Experiments & Modeling																
1.8.1.1.2.01.03	811201300	LM loop modification & Non-conducting test-secti	01MAR06	29JUN06	▲▼											
1.8.1.1.2.01.03	811201310	Non-conducting wall experiment	30JUN06	28DEC06	▲▼											
1.8.1.1.2.01.03	811201320	Conducting test-section fabrication	30OCT06	28FEB07	▲▼											
1.8.1.1.2.01.03	811201330	Conducting test-section experiment	01MAR07	29JUN07	▲▼											
1.8.1.1.2.01.03	811201340	Optimization test-section experiments	02JUL07	30NOV07	▲▼											
1.8.1.1.2.01.03	811213COST	TBM Manifold Experiment Costs	01MAR06	30NOV07	▲▼											
1.8.1.1.2.02 SiC/SiC FCI Fab and Properties																
1.8.1.1.2.02	81120100	Administration	02JAN06	28MAR13	▲▼											
1.8.1.1.2.02.01 Technical Planning																
1.8.1.1.2.02.01	811202100	Oth-Order Recommendation	01MAR06	31MAY06	▲▼											
1.8.1.1.2.02.01	811202110	Reference Strategy Development	01MAR06	31MAY06	▲▼											
1.8.1.1.2.02.01	811202130	Electrical conductivity test development	01JUN06	30MAY07	▲▼											
1.8.1.1.2.02.01	811202140	Mechanical property test development	01JUN06	30MAY07	▲▼											
1.8.1.1.2.02.01	811221COST	Technical Planning Costs	01MAR06	30MAY07	▲▼											
1.8.1.1.2.02.02 1st Generation FCI SiC/SiC																
1.8.1.1.2.02.02	811202200	Insulating composite development	02OCT06*	28SEP07	▲▼											
1.8.1.1.2.02.02	811202210	Failure mode analysis	02OCT06	28SEP07	▲▼											
1.8.1.1.2.02.02	811202220	1st Generation characterization	02JUL07	30JUN09	▲▼											
1.8.1.1.2.02.02	811202230	2nd Generation Material design	01JUL08	30JUN09	▲▼											
1.8.1.1.2.02.02	811222COST	1st Generation FCI Costs	02OCT06	30JUN09	▲▼											

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:48



TBM9
Sheet 2 of 28
ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish												
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	
1.8.1.1.2.02.03 2nd Generation FCI SiC/SiC																
1.8.1.1.2.02.03	811202300	2nd Generation fabrication	01JUL09	30JUN10												
1.8.1.1.2.02.03	811202310	2nd Generation characterization	01JAN10	30JUN11												
1.8.1.1.2.02.03	811202320	Model component fabrication	01JUL10	31JAN11												
1.8.1.1.2.02.03	811202330	Analysis of flow channel experiment samples	30DEC11	28JUN12												
1.8.1.1.2.02.03	811223COST	2nd Generation FCI Costs	01JUL09	28JUN12												
1.8.1.1.2.02.04 Low Dose Irradiation Effects																
1.8.1.1.2.02.04	811202400	Irradiated conductivities & baseline properties	02OCT06	30JUN09												
1.8.1.1.2.02.04	811202410	Differential swelling and creep (1)	01OCT07	30JUN09												
1.8.1.1.2.02.04	811202420	Differential swelling and creep (2)	01JUL10	30DEC11												
1.8.1.1.2.02.04	811202430	Final SiC Material Specifications	02JAN12	28SEP12												
1.8.1.1.2.02.04	811224COST	Low Dose Irradiation Analysis Costs	02OCT06	28SEP12												
1.8.1.1.2.03 SiC/FS/PbLi Compatibility & Chemistry																
1.8.1.1.2.03.01 Technical Planning & Data Analysis																
1.8.1.1.2.03.01	811203100	Literature & Data Review	02OCT06*	30MAR07												
1.8.1.1.2.03.01	811203110	Technical Planning	02OCT06	29JUN07												
1.8.1.1.2.03.01	811231COST	Technical Planning Costs	02OCT06	29JUN07												
1.8.1.1.2.03.02 Capsule Tests for Dissimilar Metals																
1.8.1.1.2.03.02	811203200	Capsule Preparations	02JUL07	31OCT07												
1.8.1.1.2.03.02	811203210	Exposures	01NOV07	31MAR08												
1.8.1.1.2.03.02	811203220	Post Analysis	01APR08	30JUN08												
1.8.1.1.2.03.02	811232COST	Capsule Test Costs	02JUL07	30JUN08												
1.8.1.1.2.03.03 Test/Anal of 1st-Gen Reference Samples																
1.8.1.1.2.03.03	811203300	Prepare quartz thermoconvection loop & 1st gen	01JUL08	31MAR09												
1.8.1.1.2.03.03	811203310	Exposure	01APR09	31DEC09												
1.8.1.1.2.03.03	811203320	Post Analysis	01JAN10	30JUN10												
1.8.1.1.2.03.03	811233COST	Testing & Analysis Costs	01JUL08	30JUN10												
1.8.1.1.2.03.04 Test/Anal of 2nd-Gen Reference & MHD Exp Samples																
1.8.1.1.2.03.04	811203400	Aid in design/fab of pumped loop	01JUL09	28SEP10												

Start Date 02JAN06
 Finish Date 31MAR15
 Data Date 02JAN06
 Run Date 29JUN06 10:48



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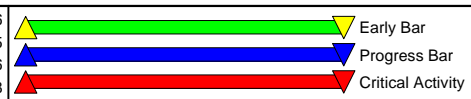
Sheet 3 of 28

ITER TBM Project
 June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	FY06												
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1.8.1.1.2.03.04	811203410	Preparation of additional 2nd gen samples	01JUL10	26NOV10						▲	▼						
1.8.1.1.2.03.04	811203420	Exposure in integrated tests	29NOV10	28MAR12							▲	▼					
1.8.1.1.2.03.04	811203430	Post Analysis	29MAR12	26SEP12								▲	▼				
1.8.1.1.2.03.04	811234COST	Testing & Analysis Costs	01JUL09	26SEP12						▲	▼						
1.8.1.1.2.04 FM Steel Fab Development & Mat'l properties																	
1.8.1.1.2.04.01 Fabrication Tech for Mockups																	
1.8.1.1.2.04.01	811204100	Be/FS HHF mockups	03SEP07	31DEC08						▲	▼						
1.8.1.1.2.04.01	811204105	FW heat flux partially integrated mockup	02JUL09	30JUN10							▲	▼					
1.8.1.1.2.04.01	811204110	LM MHD Thermofluid partially integrated mockup	01APR10	30MAR11							▲	▼					
1.8.1.1.2.04.01	811204115	Nuclear diagnostics mockup	01MAY12	29MAR13									▲	▼			
1.8.1.1.2.04.01	811241COST	Fab Technology Costs	03SEP07	29MAR13						▲	▼						
1.8.1.1.2.04.02 Investment Casting Feasibility Assessment																	
1.8.1.1.2.04.02	811204200	Surrogate Casting Alloy	02OCT06*	29JUN07	▲	▼											
1.8.1.1.2.04.02	811204205	Fluidity Testing	01JAN07	29JUN07	▲	▼											
1.8.1.1.2.04.02	811204210	Microstructure & mech properties of small heats	01JAN07	29JUN07	▲	▼											
1.8.1.1.2.04.02	811242COST	Invest Cast Feasibility Costs	02OCT06	29JUN07	▲	▼											
1.8.1.1.2.04.03 FW Investment Casting Development																	
1.8.1.1.2.04.03	811204300	Investment casting for sub-scale FW mockups	03JUL07	30SEP08	▲	▼											
1.8.1.1.2.04.03	811204315	Fab specimens for NDE and weld development	01JAN08	31DEC09						▲	▼						
1.8.1.1.2.04.03	811204305	Eval dimensional tolerances, microstructure	02JUL08	31DEC08						▲	▼						
1.8.1.1.2.04.03	811204310	Assess corrosion behavior in static LiPb	02JUL08	31DEC08						▲	▼						
1.8.1.1.2.04.03	811204320	Fabricate full-scale FW mockup	01JAN09	30JUN10							▲	▼					
1.8.1.1.2.04.03	811204325	Detailed eval of dim tolerances, microstructures	30DEC09	29DEC10								▲	▼				
1.8.1.1.2.04.03	811243COST	FW Casting Development Costs	03JUL07	29DEC10	▲	▼											
1.8.1.1.2.04.04 Grid Plate/Manifold Investment Casting Develop																	
1.8.1.1.2.04.04	811204400	Invest casting for sub-scale grid plate mock-ups	03JUL07	30SEP08	▲	▼											
1.8.1.1.2.04.04	811204415	Fab specimens for NDE and weld development	01JAN08	31DEC09						▲	▼						
1.8.1.1.2.04.04	811204410	Eval dimensional tolerances, microstructure	02JUL08	31DEC08						▲	▼						
1.8.1.1.2.04.04	811204420	Fabricate full-scale grid plate mockup	01JAN09	01JUL10						▲	▼						

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:48

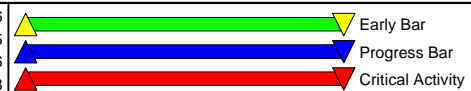


TBM9
Sheet 4 of 28
ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	Fiscal Year																
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1.8.1.1.2.04.04	811204425	Detailed eval of dim tolerances, microstructures	01OCT09	30SEP10						▲	▼										
1.8.1.1.2.04.04	811244COST	Grid Plate Casting Development Costs	03JUL07	30SEP10		▲	▼														
1.8.1.1.2.04.05 FW HIP Technology Development																					
1.8.1.1.2.04.05	811204500	Develop square tube manufacturing	02OCT06*	28SEP07		▲	▼														
1.8.1.1.2.04.05	811204520	Determine HIP parameters to join square tubes	01JAN07	30SEP08		▲	▼														
1.8.1.1.2.04.05	811204510	Develop square tube bending procedure	02APR07	31DEC07		▲	▼														
1.8.1.1.2.04.05	811204540	Fab specimens for NDE and weld development	01JAN08	31DEC09			▲	▼													
1.8.1.1.2.04.05	811204530	Eval dimensional tolerances, microstructure	01JUL08	31DEC08			▲	▼													
1.8.1.1.2.04.05	811204550	Fabricate full-scale FW mockup	01JAN09	30DEC09				▲	▼												
1.8.1.1.2.04.05	811204555	Detailed eval of dim tolerances, microstructures	03JUL09	01JUL10					▲	▼											
1.8.1.1.2.04.05	81125COST	FW HIP Tech Development Costs	02OCT06	01JUL10		▲	▼														
1.8.1.1.2.04.06 Grid Plate/Manifold HIP Development																					
1.8.1.1.2.04.06	811204600	Devel grid plate/manifold manufacturing process	02OCT06*	30MAR07		▲	▼														
1.8.1.1.2.04.06	811204610	Determine HIPing parameters for grid plate	01JAN07	30SEP08		▲	▼														
1.8.1.1.2.04.06	811204630	Fab specimens for NDE and weld development	02JAN08	30DEC09			▲	▼													
1.8.1.1.2.04.06	811204620	Eval dimensional tolerances, microstructure	03JUL08	31DEC08			▲	▼													
1.8.1.1.2.04.06	811204640	Fabricate full-scale FW mockup	01JAN09	30JUN10				▲	▼												
1.8.1.1.2.04.06	811204650	Detailed eval of dim tolerances, microstructures	01JAN10	30DEC10					▲	▼											
1.8.1.1.2.04.06	811246COST	Grid Plate/Manifold Tech Costs	02OCT06	30DEC10		▲	▼														
1.8.1.1.2.04.07 Weld Procedure Development																					
1.8.1.1.2.04.07	811204700	Identify NDE tech for specific joining methods	02OCT06*	30JUN09		▲	▼														
1.8.1.1.2.04.07	811204710	Technique development	04JUL07	31DEC09		▲	▼														
1.8.1.1.2.04.07	811204720	Techn. & procedure qual on specimens & mockups	01OCT09	30SEP10					▲	▼											
1.8.1.1.2.04.07	81127COST	NDE Methods Costs	02OCT06	30SEP10		▲	▼														
1.8.1.1.2.04.08 Test Methods Devel & Interface w/ITER Struct Dsg																					
1.8.1.1.2.04.08	811204800	Specimens and methods for testing joints	02OCT06*	26SEP08		▲	▼														
1.8.1.1.2.04.08	811204810	Interface with ITER structural design codes	01JAN07	30JUN10		▲	▼														
1.8.1.1.2.04.08	81128COST	Test Method Costs	02OCT06	30JUN10		▲	▼														

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:48

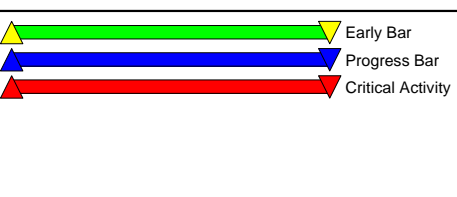


TBM9
Sheet 5 of 28
ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	Fiscal Year											
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1.8.1.1.2.04.09 Irradiated Properties Database																
1.8.1.1.2.04.09	811204900	HFIR Rabbits - Campaign I	01JUL08	30JUN09												
1.8.1.1.2.04.09	811204910	HFIR Rabbits - Campaign II	01JUL09	30JUN10												
1.8.1.1.2.04.09	81129COST	HFIR Costs	01JUL08	30JUN10												
1.8.1.1.2.04.10 Non-destructive examination methods																
1.8.1.1.2.04.10	8112041000	Identify NDE technique for specific joining meth	03JUL07	31DEC07												
1.8.1.1.2.04.10	8112041010	Technique development	01JAN08	31DEC09												
1.8.1.1.2.04.10	8112041020	Techn. & procedure qual on specimens & mockups	01JAN10	29MAR13												
1.8.1.1.2.04.10	8112410CST	NDE Methods Costs	03JUL07	29MAR13												
1.8.1.1.2.05 Helium Sys Subcomponents Analyses & Tests																
1.8.1.1.2.05.01 Helium Cooled 1st Wall Heat Transfer Enhancemnt																
1.8.1.1.2.05.01	811205100	Prepare 1st roughened test section	01JUL08	30DEC08												
1.8.1.1.2.05.01	811205110	First Test and Post Analysis	31DEC08	26JUN09												
1.8.1.1.2.05.01	811205120	Prepare 2nd roughened test section	29JUN09	23DEC09												
1.8.1.1.2.05.01	811205130	2nd Test and Post Analysis	24DEC09	21JUN10												
1.8.1.1.2.05.01	811251COST	He Cooled 1st Wall Transfer Analysis Costs	01JUL08	21JUN10												
1.8.1.1.2.05.02 Helium Coolant Flow Distribution																
1.8.1.1.2.05.02	811205200	Flow distribution mockup design & preparation	01JUL08	29JUN09												
1.8.1.1.2.05.02	811205210	Flow test and post analysis	30JUN09	28JUN10												
1.8.1.1.2.05.02	811252COST	He Coolant Flow Distribution Analysis Costs	01JUL08	28JUN10												
1.8.1.1.2.06 PbLi/H2O Hydrogen Production																
1.8.1.1.2.06.01 Droplet contact mode reactions																
1.8.1.1.2.06.01	811206100	Experiment design and definition	01JUL08	30DEC08												
1.8.1.1.2.06.01	811206110	Fabrication and testout	31DEC08	26JUN09												
1.8.1.1.2.06.01	811206120	Performance of experiments	29JUN09	26MAR10												
1.8.1.1.2.06.01	811206130	Input to Safety Analysis	30DEC09	25JUN10												
1.8.1.1.2.06.01	811261COST	PbLi H2O Production Costs	01JUL08	25JUN10												
1.8.1.1.2.07 Be Joining to FS																
1.8.1.1.2.07.01 Joining Research, Small Mock Fab, Strength Test																
1.8.1.1.2.07.01	811207100	Small Mockup fabrication	01MAR07	31AUG07												

Start Date 02JAN06
 Finish Date 31MAR15
 Data Date 02JAN06
 Run Date 29JUN06 10:48

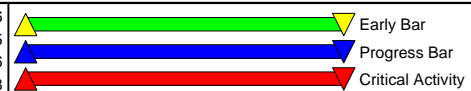


TBM9
 Sheet 6 of 28
 ITER TBM Project
 June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish													
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1.8.1.1.2.07.01	811207110	Strength testing	03JUL07	31AUG07			▲▼	Strength testing									
1.8.1.1.2.07.01	811271COST	Joining Research Costs	01MAR07	31AUG07			▲▼	Joining Research Costs									
1.8.1.1.2.07.02 Small HHF Test Mockups and NDE																	
1.8.1.1.2.07.02	811207200	Small mockup fabrication & NDE	03SEP07	31DEC07			▲▼	Small mockup fabrication & NDE									
1.8.1.1.2.07.02	811207210	2nd Small mockup HHF testing	03DEC07	30APR08			▲▼	2nd Small mockup HHF testing									
1.8.1.1.2.07.02	811207220	Post Test Analysis and recommendations	01MAY08	30JUN08			▲▼	Post Test Analysis and recommendations									
1.8.1.1.2.07.02	811272COST	Small HHF Mockup Costs	03SEP07	30JUN08			▲▼	Small HHF Mockup Costs									
1.8.1.1.2.07.03 Prototype PFC Mockup																	
1.8.1.1.2.07.03	811207300	PFC mockup fabrication and NDE	01JUL08	31DEC08			▲▼	PFC mockup fabrication and NDE									
1.8.1.1.2.07.03	811207310	PFC mockup HHF testing	01JAN09	30APR09			▲▼	PFC mockup HHF testing									
1.8.1.1.2.07.03	811207330	Post Test Analysis and recommendations	01MAY09	30JUN09			▲▼	Post Test Analysis and recommendations									
1.8.1.1.2.07.03	811273COST	PFC Mockup Costs	01JUL08	30JUN09			▲▼	PFC Mockup Costs									
1.8.1.1.2.07.04 Irradiation of TBM PFC joints																	
1.8.1.1.2.07.04	811207600	Fabricate samples	01JUL08	29AUG08			▲▼	Fabricate samples									
1.8.1.1.2.07.04	811207610	Irradiation in HFIR	01SEP08	31MAR09			▲▼	Irradiation in HFIR									
1.8.1.1.2.07.04	811207620	Post-Irradiation analysis & recommendations	01APR09	30JUN09			▲▼	Post-Irradiation analysis & recommendations									
1.8.1.1.2.07.04	811276COST	Irradiation of TBM PFC Costs	01JUL08	30JUN09			▲▼	Irradiation of TBM PFC Costs									
1.8.1.1.2.08 Advanced Diagnostics																	
1.8.1.1.2.08.01 Participate in Int'l Diagnostic Sys Developments																	
1.8.1.1.2.08.01	811209200	Survey Inst, meas. tech. fr: TOKAMAK & ITER part	02OCT06*	29JUN07			▲▼	Survey Inst, meas. tech. fr: TOKAMAK & ITER part									
1.8.1.1.2.08.01	811209210	Adapt. TOKAMAK or ptrn diags to US TBM, test	02JUL07	31DEC08			▲▼	Adapt. TOKAMAK or ptrn diags to US TBM, test									
1.8.1.1.2.08.01	811209220	Testing sensitive systems in test tokamak	28JAN08	26JAN09			▲▼	Testing sensitive systems in test tokamak									
1.8.1.1.2.08.01	811292COST	Int'l Sys Development Costs	02OCT06	26JAN09			▲▼	Int'l Sys Development Costs									
1.8.1.1.2.08.02 Testing of H-H TBM Diagnostics on Mockups																	
1.8.1.1.2.08.02	811209300	Prep of diagnostics for FW heat flux mockup	27JAN09	26JAN10			▲▼	Prep of diagnostics for FW heat flux mockup									
1.8.1.1.2.08.02	811209315	Prep of diagnostic for Thermofluid MHD mockup	27NOV09	26JAN11			▲▼	Prep of diagnostic for Thermofluid MHD mockup									
1.8.1.1.2.08.02	811209305	Operate diag. during FW heat flux experiments	27JAN10	27OCT10			▲▼	Operate diag. during FW heat flux experiments									
1.8.1.1.2.08.02	811209310	Recommendations on diagnostic changes	30JUL10	26JAN11			▲▼	Recommendations on diagnostic changes									
1.8.1.1.2.08.02	811209330	Prep of diagnostic sensors for prototype	27JAN11	27FEB12			▲▼	Prep of diagnostic sensors for prototype									

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:48

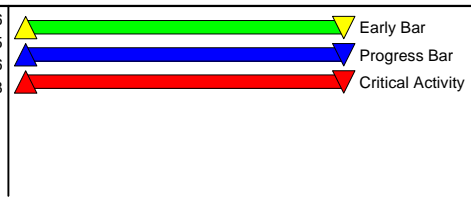


TBM9
Sheet 7 of 28
ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	Fiscal Year											
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	
1.8.1.1.2.08.02	811209320	Operate diag. in Thermofluid MHD experiments	27JAN11	28MAY12							▲▼					
1.8.1.1.2.08.02	811209325	Recommendations on diagnostic changes (FDR)	30JUN11	29AUG11							▲▼					
1.8.1.1.2.08.02	811209335	Operate diagnostics during prototype testing	28FEB12	28AUG12											▲▼	
1.8.1.1.2.08.02	811209326	Recommendations on diagnostic changes	27APR12	27JUL12							▲▼					
1.8.1.1.2.08.02	811293COST	TBM Diagnostics Testing Costs	27JAN09	28AUG12				▲▼								
1.8.1.1.2.08.03 Part in Int'l Diag Devel for Nuclear Parameters																
1.8.1.1.2.08.03	811209405	Participate in mockup measurements @ FNS a/o	01JUL08	31DEC08				▲▼								
1.8.1.1.2.08.03	811209400	Survey Instrumentation and measuring techniques	01JUL08	29JUN09				▲▼								
1.8.1.1.2.08.03	811209410	Perform post analysis of preliminary experiments	01JAN09	30JUN09				▲▼								
1.8.1.1.2.08.03	811209415	Participate in mockup measurements @ FNS a/o	01JUL09	31DEC09				▲▼								
1.8.1.1.2.08.03	811209420	Perform post analysis of preliminary experiments	01JAN10	30JUN10				▲▼								
1.8.1.1.2.08.03	811209425	Participate in mockup measurements @ FNS a/o	01JUL10	31DEC10				▲▼								
1.8.1.1.2.08.03	811209430	Perform post analysis of preliminary experiments	03JAN11	30JUN11				▲▼								
1.8.1.1.2.08.03	811209435	Pre-analysis for mockup desgn & diag sensitivity	01JUL11	30MAR12				▲▼								
1.8.1.1.2.08.03	811209440	Mockup/diagnositcs fabrication for DCLL	02APR12	28FEB13							▲▼					
1.8.1.1.2.08.03	811209445	Shipping and Installation in source	01MAR13	31JUL13											▲▼	
1.8.1.1.2.08.03	811209450	Irradiation and measurements	01AUG13	31MAR14											▲▼	
1.8.1.1.2.08.03	811209455	Data analysis and reporting	01APR14	28JAN15											▲▼	
1.8.1.1.2.08.03	811294COST	Monitor Int'l Nulcear Developments Costs	01JUL08	28JAN15				▲▼								
1.8.1.1.2.09 Partially Integrated Mockups Testing																
1.8.1.1.2.09.01 FW Heat Flux Tests																
1.8.1.1.2.09.01	811210100	Helium loop specification & design	01OCT08	30DEC08				▲▼								
1.8.1.1.2.09.01	811210110	Helium loop procurement & fabrication	31DEC08	29SEP09				▲▼								
1.8.1.1.2.09.01	811210140	FW test mockup design	01JUL09	31DEC09				▲▼								
1.8.1.1.2.09.01	811210120	Helium loop installation	30SEP09	25FEB10				▲▼								
1.8.1.1.2.09.01	811210150	Mockup fabrication	02NOV09	29APR10				▲▼								
1.8.1.1.2.09.01	811210130	He Loop checkout	26FEB10	29JUN10				▲▼								
1.8.1.1.2.09.01	811210160	Mockup testing	30APR10	01NOV10				▲▼								
1.8.1.1.2.09.01	811210170	Mockup post-analysis	02NOV10	28FEB11				▲▼								

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:48

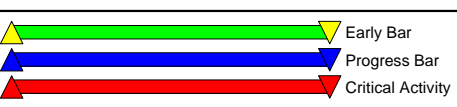


TBM9
Sheet 8 of 28
ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	Fiscal Year												
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16		
1.8.1.1.2.09.01	811210180	Mockup disposal & facility cleanup	01MAR11	28APR11							▲▼						
1.8.1.1.2.09.01	8112X1COST	FW Heat Flux Test Costs	01OCT08	28APR11				▲▼				▼					
1.8.1.1.2.09.02 PbLi Flow & Heat Transfer Tests																	
1.8.1.1.2.09.02	811210300	PbLi Loop Specification & Design	01JUL09	28DEC09							▲▼						
1.8.1.1.2.09.02	811210340	LM test Mockup and FCI design/bid	29SEP09	30MAR10							▲▼						
1.8.1.1.2.09.02	811210320	PbLi loop procurement and fabrication	29DEC09	28SEP10							▲▼						
1.8.1.1.2.09.02	811210350	LM Mockup fabrication	31MAR10	28SEP10							▲▼						
1.8.1.1.2.09.02	811210360	System (He, LM, Magnet) install. & checkout	29SEP10	26NOV10							▲▼						
1.8.1.1.2.09.02	811210330	Ship He loop to magnet facility	02NOV10	31DEC10							▲▼						
1.8.1.1.2.09.02	811210370	Initial LM Mockup testing and post analysis	29NOV10	29APR11							▲▼						
1.8.1.1.2.09.02	811210375	Extended operation, post analysis, disposal	02MAY11	30OCT12							▲▼						
1.8.1.1.2.09.02	8112X3COST	PbLi Flow Testing Costs	01JUL09	30OCT12				▲▼									
1.8.1.1.2.09.03 Pressurization & Internal LOCA Tests																	
1.8.1.1.2.09.03	811210200	Pressure test facility spec & design	01MAR11	30JUN11							▲▼						
1.8.1.1.2.09.03	811210210	Procurement for facility mods	01JUL11	31OCT11							▲▼						
1.8.1.1.2.09.03	811210220	Facility modification & checkout	01NOV11	30APR12							▲▼						
1.8.1.1.2.09.03	811210230	Package and ship prototype to test facility	01MAY12	29JUN12							▲▼						
1.8.1.1.2.09.03	811210240	Mockup installation & testing	29AUG12	27FEB13							▲▼						
1.8.1.1.2.09.03	811210260	Mockup post-analysis & design recommendations	28JAN13	25APR13							▲▼						
1.8.1.1.2.09.03	811210270	Disposal of mockup; facility decommissioning	26APR13	25JUL13							▲▼						
1.8.1.1.2.09.03	8112X2COST	Pressurization Testing Costs	01MAR11	25JUL13							▲▼						
1.8.1.1.3 Engineering																	
1.8.1.1.3.01 Preliminary Design & Analysis, Title I																	
1.8.1.1.3.01.01 Mechanical Design																	
1.8.1.1.3.01.01	811301100	Preliminary design	02JAN06	30JUN08	▲▼												
1.8.1.1.3.01.02 FM Steel Engineering & Fabrication																	
1.8.1.1.3.01.02	8113012100	Interface w/DCLL Des. Tm -Mat'l Selec & Fab Tech	01MAR06	30JUN08	▲▼												
1.8.1.1.3.01.02	8113012110	Int'face ITER Mat'l Prop H'bk & Struct Code Dev.	01MAR06	30JUN08	▲▼												
1.8.1.1.3.01.02	811312COST	Ferritic Steel Design Costs	01MAR06	30JUN08	▲▼												

Start Date 02JAN06
 Finish Date 31MAR15
 Data Date 02JAN06
 Run Date 29JUN06 10:48



TBM9
 Sheet 9 of 28
 ITER TBM Project
 June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish											
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
1.8.1.1.3.01.03 Nuclear Analysis															
1.8.1.1.3.01.03	811301300	Nuclear Analysis - Preliminary	01MAR06	30JUN08	▶ Nuclear Analysis - Preliminary										
1.8.1.1.3.01.04 Thermofluid MHD															
1.8.1.1.3.01.04	8113014100	Prelim Assess & Design of SiC/SiC FCI	06MAR06	30JUN08	▶ Prelim Assess & Design of SiC/SiC FCI										
1.8.1.1.3.01.04	8113014110	Prelim Assess & Design of Alt FCI	06MAR06	30JUN08	▶ Prelim Assess & Design of Alt FCI										
1.8.1.1.3.01.04	8113014120	Prelim Analy & Des. of Pb-17Li Inlet Manifold	06MAR06	30JUN08	▶ Prelim Analy & Des. of Pb-17Li Inlet Manifold										
1.8.1.1.3.01.04	811314COST	Thermofluid MHD Design Costs	06MAR06	30JUN08	▶ Thermofluid MHD Design Costs										
1.8.1.1.3.01.05 Thermofluid He															
1.8.1.1.3.01.05	811301500	First Wall Thermofluid Analysis - Preliminary	01MAR06	30JUN08	▶ First Wall Thermofluid Analysis - Preliminary										
1.8.1.1.3.01.05	811301510	Fluid Distribution Analysis - Preliminary	02OCT06	30JUN08	▶ Fluid Distribution Analysis - Preliminary										
1.8.1.1.3.01.05	811301505	Grid/Top/Bottom/Back Plate Thermofluid Analysis	02APR07	30JUN08	▶ Grid/Top/Bottom/Back Plate Thermofluid Analysis										
1.8.1.1.3.01.06 Structural Analysis															
1.8.1.1.3.01.06	811301600	Normal Operation - Preliminary	01MAR06	30JUN08	▶ Normal Operation - Preliminary										
1.8.1.1.3.01.06	811301605	Transient Events - Preliminary	01MAR06	30JUN08	▶ Transient Events - Preliminary										
1.8.1.1.3.01.06	811301610	Disruption Events - Preliminary	01MAR06	30JUN08	▶ Disruption Events - Preliminary										
1.8.1.1.3.01.06	811316COST	Structural Analysis Costs	01MAR06	30JUN08	▶ Structural Analysis Costs										
1.8.1.1.3.01.07 Diagnostic / Instrumental / Control															
1.8.1.1.3.01.07	811301700	Eval Measurement Needs & Diagn. Placement	02JAN06	31DEC07	▶ Eval Measurement Needs & Diagn. Placement										
1.8.1.1.3.01.07	811301710	Recommend's - R&D needs & design consid.	01JAN08	30JUN08	▶ Recommend's - R&D needs & design consid.										
1.8.1.1.3.01.07	811317COST	Diagnostics / I&C Design Costs	02JAN06	30JUN08	▶ Diagnostics / I&C Design Costs										
1.8.1.1.3.01.08 TBM Interface															
1.8.1.1.3.01.08	811301800	Preliminary design	02JAN06	30JUN08	▶ Preliminary design										
1.8.1.1.3.02 Detailed Design, Title II															
1.8.1.1.3.02.01 Mechanical Design															
1.8.1.1.3.02.01	811302100	Detailed design	01JUL08	01SEP10	▶ Detailed design										
1.8.1.1.3.02.02 FS Engineering & Fabrication															
1.8.1.1.3.02.02	811302200	Interface w/DCLL Des. Tm -Mat'l Selec & Fab Tech	01JUL08	01SEP10	▶ Interface w/DCLL Des. Tm -Mat'l Selec & Fab Tech										
1.8.1.1.3.02.02	811302210	Int'face ITER Mat'l Prop H'bk & Struct Code Dev.	01JUL08	01SEP10	▶ Int'face ITER Mat'l Prop H'bk & Struct Code Dev.										
1.8.1.1.3.02.02	811322COST	Ferritic Steel Design Costs	01JUL08	01SEP10	▶ Ferritic Steel Design Costs										

Start Date 02JAN06
 Finish Date 31MAR15
 Data Date 02JAN06
 Run Date 29JUN06 10:48



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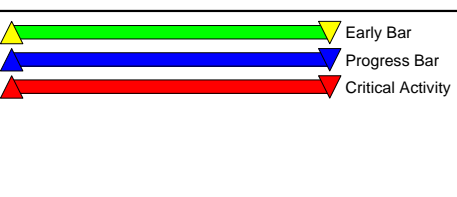
Sheet 10 of 28

ITER TBM Project
 June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish												
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	
1.8.1.1.3.02.03 Nuclear Analysis																
1.8.1.1.3.02.03	811302300	Nuclear Analysis - Detailed	01JUL08	01SEP10												
1.8.1.1.3.02.04 Thermofluid MHD																
1.8.1.1.3.02.04	8113024100	Final Assess & Design of SiC/SiC FCI	01JUL08	01SEP10												
1.8.1.1.3.02.04	8113024110	Final Analy & Design of Pb-17Li Inlet Manifold	01JUL08	01SEP10												
1.8.1.1.3.02.04	8113024120	Final Design Optimization	01JUL08	01SEP10												
1.8.1.1.3.02.04	811324COST	Thermofluid MHD Design Costs	01JUL08	01SEP10												
1.8.1.1.3.02.05 Thermofluid He																
1.8.1.1.3.02.05	811302500	First Wall Thermofluid Analysis - Detailed	02JUL08	02SEP10												
1.8.1.1.3.02.05	811302505	Grid/Top/Bottom/Back Plate Thermofluid Analysis	02JUL08	02SEP10												
1.8.1.1.3.02.05	811302510	Fluid Distribution Analysis - Detailed	02JUL08	02SEP10												
1.8.1.1.3.02.06 Structural Analysis																
1.8.1.1.3.02.06	811302600	Normal Operation - Detailed	02JUL08	02SEP10												
1.8.1.1.3.02.06	811302605	Transient Events - Detailed	02JUL08	02SEP10												
1.8.1.1.3.02.06	811302610	Disruption Events - Detailed	02JUL08	02SEP10												
1.8.1.1.3.02.06	811326COST	Structural Analysis Costs	02JUL08	02SEP10												
1.8.1.1.3.02.07 Diagnostic / Instrumental / Control																
1.8.1.1.3.02.07	811302700	Detailed placement and attach - diagn. sensors	01JUL08	31DEC09												
1.8.1.1.3.02.07	811302710	Detailed wiring path & feed thru locations	01JUL08	31DEC09												
1.8.1.1.3.02.07	811302720	Design overall diag mpv/transmission system	01JAN10	31AUG10												
1.8.1.1.3.02.07	811327COST	Diagnostics / I&C Design Costs	01JUL08	31AUG10												
1.8.1.1.3.02.08 TBM Interface																
1.8.1.1.3.02.08	811302800	Detailed design	01JUL08	01SEP10												
1.8.1.1.3.03 Title III																
1.8.1.1.3.03.01 Mechanical Design																
1.8.1.1.3.03.01	811331	Mech Design Title III	02SEP10	30JAN15												
1.8.1.1.3.03.02 FS Engineering & Fabrication																
1.8.1.1.3.03.02	811303200	Review Material & Fab Specifications	02SEP10	31DEC10												
1.8.1.1.3.03.02	811303205	Prep Final Prototype Matl & Fab Specifications	03JAN11	30JUN11												
1.8.1.1.3.03.02	811303210	Interface with Vendor	01JUL11	31DEC12												

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:48

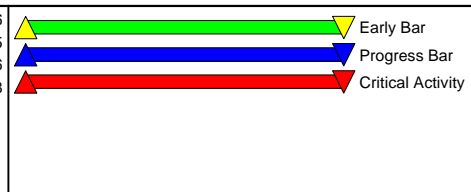


TBM9
Sheet 11 of 28
ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish												
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	
1.8.1.1.4.03 Tooling & Processing - FS																
1.8.1.1.4.03	811430	Tooling & Processing - FS	03FEB11	03AUG11												▲▼ Tooling & Processing - FS
1.8.1.1.4.04 Material Procurement - FS																
1.8.1.1.4.04	811420	Material Procurement - FS	02SEP10	01APR11												▲▼ Material Procurement - FS
1.8.1.1.4.05 Fabricate Components - FS																
1.8.1.1.4.05	811440	Fabrication Components - FS	04AUG11	05MAR12												▲▼ Fabrication Components - FS
1.8.1.1.4.06 Call for Tender / Contract Award - SiC/SiC																
1.8.1.1.4.06	811416	Contract Award - SiC/SiC	02SEP10													◆ Contract Award - SiC/SiC
1.8.1.1.4.07 Tooling & Processing - SiC/SiC																
1.8.1.1.4.07	811431	Tooling & Processing - SiC/SiC	03FEB11	03AUG11												▲▼ Tooling & Processing - SiC/SiC
1.8.1.1.4.08 Material Procurement - SiC/SiC																
1.8.1.1.4.08	811421	Material Procurement - SiC/SiC	02SEP10	01APR11												▲▼ Material Procurement - SiC/SiC
1.8.1.1.4.09 Fabricate Components - SiC/SiC																
1.8.1.1.4.09	811441	Fabrication Components - SiC/SiC	04AUG11	05MAR12												▲▼ Fabrication Components - SiC/SiC
1.8.1.1.4.10 Assemble Prototype																
1.8.1.1.4.10	811450	Assemble Prototype w/ Heat Treatment	03JAN12	30APR12												▲▼ Assemble Prototype w/ Heat Treatment
1.8.1.1.5 Prototype Assembly, Testing & Installation																
1.8.1.1.5.01 Packaging & Shipping to Test Facility																
1.8.1.1.5.01	8115510	Package and ship prototype to test facility	01MAY12	31JUL12												▲▼ Package and ship prototype to test facility
1.8.1.1.5.02 Installation in Test Facility																
1.8.1.1.5.02	8115520	Mockup installation & testing	01AUG12	31JAN13												▲▼ Mockup installation & testing
1.8.1.1.5.02	811500	Prototype Testing	31AUG12	31MAY13												▲▼ Prototype Testing
1.8.1.1.5.03 Test Performance & Documentation																
1.8.1.1.5.03	8115530	Mockup post-analysis & design recommendations	01FEB13	01MAY13												Mockup post-analysis & design recommendations ▲▼
1.8.1.1.6 TBM Fabrication																
1.8.1.1.6	811650	TBM Contract Renegotiation	02SEP10													◆ TBM Contract Renegotiation
1.8.1.1.6	8116COST	TBM Fabrication Costs	02SEP10	31MAR15												TBM Fabrication Costs ▲
1.8.1.1.6.01 Tooling & Processing - FS																
1.8.1.1.6.01	811665	TBM Tooling & Processing - FS	02FEB12	31JUL12												▲▼ TBM Tooling & Processing - FS
1.8.1.1.6.02 Material Procurement - FS																
1.8.1.1.6.02	811655	TBM Material Procurement - FS	01JUL11	01MAR12												▲▼ TBM Material Procurement - FS

Start Date 02JAN06
 Finish Date 31MAR15
 Data Date 02JAN06
 Run Date 29JUN06 10:48

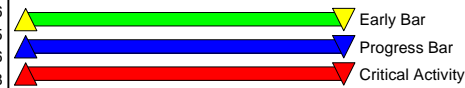


TBM9
 Sheet 13 of 28
 ITER TBM Project
 June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish														
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16			
1.8.1.1.6.03 1st TBM Fabrication Components - FS																		
1.8.1.1.6.03	811660	TBM Fabrication - FS	01JUL13	30APR14														TBM Fabrication - FS
1.8.1.1.6.04 Tooling & Processing - SiC/SiC																		
1.8.1.1.6.04	811676	TBM Tooling & Processing - SiC/SiC	02FEB12	31JUL12														TBM Tooling & Processing - SiC/SiC
1.8.1.1.6.05 Material Procurement - SiC/SiC																		
1.8.1.1.6.05	811656	TBM Material Procurement - SiC/SiC	01JUL11	01MAR12														TBM Material Procurement - SiC/SiC
1.8.1.1.6.06 1st TBM Fabrication Components - SiC/SiC																		
1.8.1.1.6.06	811666	TBM Fabrication - SiC/SiC	01JUL13	30APR14														TBM Fabrication - SiC/SiC
1.8.1.1.6.07 Assemble 1st TBM Article																		
1.8.1.1.6.07	811679	Assemble TBM 1st Article	30OCT13	30APR14														Assemble TBM 1st Article
1.8.1.1.7 Acceptance Tests & Packaging																		
1.8.1.1.7.01 Final Acceptance Tests																		
1.8.1.1.7.01	811670	TBM Final Acceptance Tests	01MAY14	01JAN15														TBM Final Acceptance Tests
1.8.1.1.7.02 TBM Packaging																		
1.8.1.1.7.02	811675	TBM Packaging & Shipping	02JAN15	31MAR15														TBM Packaging & Shipping
1.8.1.1.7.02	811760	TBM Ready for Shipping to ITER		31MAR15														TBM Ready for Shipping to ITER
1.8.1.2 Helium Flow Loops																		
1.8.1.2.1 Primary Helium Loop																		
1.8.1.2.1	8121COST	Primary Helium Loop Costs	30DEC10	31DEC14														Primary Helium Loop Costs
1.8.1.2.1.01 Preliminary Design of Primary Helium Loop																		
1.8.1.2.1.01	81210100	Prelim. design - Primary Helium Loop	02JAN06	30SEP08														Prelim. design - Primary Helium Loop
1.8.1.2.1.02 Detailed Design of Primary Helium Loop																		
1.8.1.2.1.02	81210200	Detailed design - Primary Helium Loop	01OCT08	29DEC10														Detailed design - Primary Helium Loop
1.8.1.2.1.03 Fabrication / Procurement																		
1.8.1.2.1.03	81210300	Fab. Bid Pkg preparation & processing	30DEC10	28SEP11														Fab. Bid Pkg preparation & processing
1.8.1.2.1.03	81210306	Primary Loop fabrication	30SEP11	30SEP13														Primary Loop fabrication
1.8.1.2.1.03	81210303	Fabrication Contract Award		28SEP11														Fabrication Contract Award
1.8.1.2.1.04 Assembly, Testing & Installation																		
1.8.1.2.1.04	81210400	Primary Loop testing, packaging & shipping	01OCT13	30MAY14														Primary Loop testing, packaging & shipping
1.8.1.2.1.04	81210410	On-site installation - primary loop	02JUN14	31DEC14														On-site installation - primary loop

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:48



TBM9

Sheet 14 of 28

ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	Fiscal Year										
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
1.8.1.2.2 Intermediate Helium Loop															
1.8.1.2.2	8122COST	Secondary Helium Loop Costs	30DEC10	31DEC14	Secondary Helium Loop Costs										
1.8.1.2.2.01 Preliminary Design of Intermediate Helium Loop															
1.8.1.2.2.01	81220100	Prelim. design - Secondary Helium Loop	02JAN06	30SEP08	Prelim. design - Secondary Helium Loop										
1.8.1.2.2.02 Detailed Design of Intermediate Helium Loop															
1.8.1.2.2.02	81220200	Detailed design - Secondary Helium Loop	01OCT08	29DEC10	Detailed design - Secondary Helium Loop										
1.8.1.2.2.03 Fabrication / Procurement															
1.8.1.2.2.03	81220300	Fab. Bid Pkg preparation & processing	30DEC10	28SEP11	Fab. Bid Pkg preparation & processing										
1.8.1.2.2.03	81220320	Secondary Loop fabrication	30SEP11	30SEP13	Secondary Loop fabrication										
1.8.1.2.2.03	81220310	Fabrication Contract Award		28SEP11	Fabrication Contract Award										
1.8.1.2.2.04 Assembly, Testing & Installation															
1.8.1.2.2.04	81220400	Secondary Loop testing, packaging & shipping	01OCT13	30MAY14	Secondary Loop testing, packaging & shipping										
1.8.1.2.2.04	81220410	On-site installation - secondary loop	02JUN14	31DEC14	On-site installation - secondary loop										
1.8.1.3 PbLi Flow Loop															
1.8.1.3.1 Preliminary Design of PbLi Loop															
1.8.1.3.1	813100	Preliminary Design	02JAN06	31DEC08	Preliminary Design										
1.8.1.3.2 Detailed Design of PbLi Loop															
1.8.1.3.2	813200	Detailed Design	01JAN09	31MAR11	Detailed Design										
1.8.1.3.3 Fabrication / Procurement															
1.8.1.3.3	813300	Bid package preparation & processing	01APR11	29SEP11	Bid package preparation & processing										
1.8.1.3.3	813320	PbLi Flow Loop fabrication	30SEP11	28JUN13	PbLi Flow Loop fabrication										
1.8.1.3.3	813310	Fabrication Contract Award		29SEP11	Fabrication Contract Award										
1.8.1.3.3	8133COST	Fabrication / Procurement Costs	01APR11	28JUN13	Fabrication / Procurement Costs										
1.8.1.3.4 Assembly, Testing & Installation															
1.8.1.3.4	813400	Testing, packaging & shipping	01JUL13	31DEC13	Testing, packaging & shipping										
1.8.1.3.4	813410	On-site installation	01JAN14	31DEC14	On-site installation										
1.8.1.3.4	8134COST	Assembly, Testing & Install. Costs	01JUL13	31DEC14	Assembly, Testing & Install. Costs										
1.8.1.4 Tritium Processing Systems															
1.8.1.4.1 Administration															
1.8.1.4.1	81410100	Administration	01FEB06	30JUN14	Administration										

Start Date	02JAN06		Early Bar
Finish Date	31MAR15		Progress Bar
Data Date	02JAN06		
Run Date	29JUN06 10:49		Critical Activity

TBM9

Sheet 15 of 28

ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish																
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16					
1.8.1.4.2 R&D																				
1.8.1.4.2.01 Model Development & Testing																				
1.8.1.4.2.01	814202100	Basic geometry permeator model devel.	01SEP08	31AUG09																
1.8.1.4.2.01	814202105	Permeator experiment modeling & benchmarking	01SEP09	30JUN11																
1.8.1.4.2.01	814202110	ITER permeator system modeling	01JUL11	30DEC11																
1.8.1.4.2.01	814221COST	Model Development Costs	01SEP08	30DEC11																
1.8.1.4.2.02 Fate of Tritium in PbLi																				
1.8.1.4.2.02	814202200	Mass transfer coefficients measurements	03OCT07	01SEP08																
1.8.1.4.2.02	814202205	Chemical speciation studies	03OCT07	01SEP08																
1.8.1.4.2.02	814202210	Liquid (PbLi side)-solid (tube wall) equilibrium	02SEP08	31AUG09																
1.8.1.4.2.02	814222COST	Fate of Tritium Costs	03OCT07	31AUG09																
1.8.1.4.2.03 Tritium Extraction from PbLi																				
1.8.1.4.2.03	814202300	Permeator experiment design/fabrication	01SEP09	30JUN10																
1.8.1.4.2.03	814202305	Permeator experiment and optimization	01JUL10	29JUN11																
1.8.1.4.2.03	814223COST	Tritium Extraction Costs	01SEP09	29JUN11																
1.8.1.4.2.04 Tritium Extraction from He																				
1.8.1.4.2.04	814202400	Small scale testing of various removal techniq's	02JAN12	31DEC12																
1.8.1.4.3 Engineering																				
1.8.1.4.3	8143COST	Engineering Costs	01OCT13	20MAR15																
1.8.1.4.3.01 Design																				
1.8.1.4.3.01.01 Tritium Extraction from PbLi																				
1.8.1.4.3.01.01	814303100	Tritium extraction from PbLi	01OCT13*	30SEP14																
1.8.1.4.3.01.02 Tritium Extraction from He																				
1.8.1.4.3.01.02	814303200	Tritium extraction from He	01OCT13	30SEP14																
1.8.1.4.3.01.03 System Integration																				
1.8.1.4.3.01.03	81430400	System integration	01OCT14	20MAR15																
1.8.1.5 DCLL / ITER System Integration																				
1.8.1.5.1 Administration																				
1.8.1.5.1	815100	Administration	03JUL06	26DEC14																

Start Date 02JAN06
 Finish Date 31MAR15
 Data Date 02JAN06
 Run Date 29JUN06 10:49



TBM9

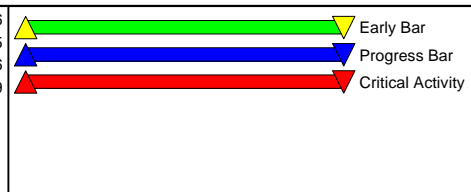
Sheet 16 of 28

ITER TBM Project
 June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish												
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	
1.8.1.5.2 R&D																
1.8.1.5.2	8152COST	R&D Costs	01JAN08	30SEP09			▲									
1.8.1.5.2.01 He and PbLi Conc. Pipe joints																
1.8.1.5.2.01	81520100	PbLi Concentric pipe slip joint R&D	01JAN08	30SEP09			▲									
1.8.1.5.2.02 VV Plug Bellows Design																
1.8.1.5.2.02	81520200	Plug Bellows design	01JAN08	30SEP09			▲									
1.8.1.5.3 TBM System Design Integration																
1.8.1.5.3	81531COST	Design Costs	03JUL06	28SEP07	▲											
1.8.1.5.3	81532COST	Design Costs	03OCT07	01JAN13			▲									
1.8.1.5.3.01 In-Vessel System Integration																
1.8.1.5.3.01.01 TBM System Integration																
1.8.1.5.3.01.01	815301100	PbLi Loop in-vessel system integration	03JUL06	26SEP12	▲											
1.8.1.5.3.02 Ex-Vessel System Integration & Interface.																
1.8.1.5.3.02.01 PbLi Loop Installation Inside Transporter																
1.8.1.5.3.02.01	815302100	PbLi Loop installation in transporter	04JAN10	01JAN13						▲						
1.8.1.5.3.02.02 Pipe Runs																
1.8.1.5.3.02.02	815302200	Pipe runs	04JAN10	15JAN13						▲						
1.8.1.5.3.02.03 Helium Loop Installation Interface																
1.8.1.5.3.02.03	815302300	He Loop installation	03JUL09	01JAN13						▲						
1.8.1.5.3.03 RH System Integration																
1.8.1.5.3.03	81530300	RH System integration	16DEC09	16JAN13						▲						
1.8.1.5.3.04 Engineering Design & Analysis:																
1.8.1.5.3.04	81530400	Engineering design & analysis	03OCT07	01JAN13			▲									
1.8.1.5.3.05 Piping System Design & Analysis																
1.8.1.5.3.05	81530500	Piping system design & analysis	03OCT07	02JAN12			▲									
1.8.1.5.3.06 Piping Bellows Design & Analysis																
1.8.1.5.3.06	81530600	Piping bellows design & analysis	03OCT07	16JAN12			▲									
1.8.1.5.3.07 Special Remote Handling Tooling Requirements.																
1.8.1.5.3.07	81530700	RH Special Tooling	04JAN10	02JAN12						▲						
1.8.1.5.4 Fabrication, Procurement & Shipping.																
1.8.1.5.4	815400	Fabrication, procurement & shipping	03JAN12	29JAN14												

Start Date 02JAN06
 Finish Date 31MAR15
 Data Date 02JAN06
 Run Date 29JUN06 10:49



TBM9
 Sheet 17 of 28
 ITER TBM Project
 June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish											
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
1.8.1.5.5 Assembly & On-Site Testing															
1.8.1.5.5	815500	Assembly and on-site testing	31JAN13	02JAN15	Assembly and on-site testing										
1.8.2 HCCB															
1.8.2	8213100	Begin Preliminary Design	02JAN06*		◆ Begin Preliminary Design										
1.8.2	82140400	Begin Prototype Fabrication	01APR11		◆ Begin Prototype Fabrication										
1.8.2	82140500	Begin Prototype Qualification Tests	30MAR12		◆ Begin Prototype Qualification Tests										
1.8.2	82140700	Begin Submodule Fabrication	31DEC12		◆ Begin Submodule Fabrication										
1.8.2	82140800	Begin Submodule Acceptance Tests	30SEP13		◆ Begin Submodule Acceptance Tests										
1.8.2	82130135	Preliminary Fabrication Scheme Defined		28SEP07	◆ Preliminary Fabrication Scheme Defined										
1.8.2	82130155	International Agreement Established		31DEC07	◆ International Agreement Established										
1.8.2	82130200	Prelim Design Review		31DEC08	◆ Prelim Design Review										
1.8.2	82130245	Contract/Bid Specification Development Complete		28SEP09	◆ Contract/Bid Specification Development Complete										
1.8.2	82140110	Fabrication Contract Award		31MAR10	◆ Fabrication Contract Award										
1.8.2	82130310	Submodule Detailed Design Final Review		28DEC12	◆ Submodule Detailed Design Final Review										
1.8.2	82150110	Deliver to Host Party		02JUL14	◆ Deliver to Host Party										
1.8.2	82150210	Ready to Ship to ITER		31MAR15	◆ Ready to Ship to ITER										
1.8.2.1 Test Submodule															
1.8.2.1.1 Administration															
1.8.2.1.1	82110110	Administration	02JAN06	20MAR15	Administration										
1.8.2.1.1	82110100	Begin HCCB	02JAN06*		◆ Begin HCCB										
1.8.2.1.2 R&D															
1.8.2.1.2	8212100	Begin HCCB R&D	02JAN06*		◆ Begin HCCB R&D										
1.8.2.1.2	8212180	H-H Phase R&D Complete		29AUG12	◆ H-H Phase R&D Complete										
1.8.2.1.2.01 Helium Flow Distrib. & Manifold Flow Testing															
1.8.2.1.2.01	82120100	Modeling analysis	02JAN06	29JUN07	Modeling analysis										
1.8.2.1.2.01	82120140	He loop design, construction, upgrade	02JAN06	31DEC07	He loop design, construction, upgrade										
1.8.2.1.2.01	82120110	Test articles design and construction	02JAN06	31DEC08	Test articles design and construction										
1.8.2.1.2.01	82120120	Diagnostics procurement & installation	02OCT06	31DEC07	Diagnostics procurement & installation										
1.8.2.1.2.01	82120130	Perform 1st series of experiments	02JUL07	30JUN08	Perform 1st series of experiments										

Start Date	02JAN06		Early Bar
Finish Date	31MAR15		Progress Bar
Data Date	02JAN06		Critical Activity
Run Date	29JUN06 10:49		

TBM9

Sheet 18 of 28

ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	Fiscal Year											
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	
1.8.2.1.2.04	82120550	Experiments	02AUG10	28JAN11						▲▼						
1.8.2.1.2.04	82120560	Multiple-effect benchmark simulations	31JAN11	29APR11						▲▼						
1.8.2.1.2.04	82120570	Documentation	02MAY11	29JUL11						▲▼						
1.8.2.1.2.04	82120580	Documentation and inputs to RPrS and TSD	02MAY11	31OCT11						▲▼						
1.8.2.1.2.04	82120420	Single-effect experimental study	02OCT06	29DEC08	▲	▼										
1.8.2.1.2.04	82124COST	Tritium Control R&D Costs	02OCT06	31OCT11	▲	▼										
1.8.2.1.2.04	82120500	Multiple-effect experimental study	01OCT09	28JAN11					▲	▼						
1.8.2.1.2.05 Breeder Pebble Specifications & Qualifications																
1.8.2.1.2.05	821205000	Init. breeder pebble knowledge base & proc spec	02JAN06	30DEC11	▲	▼										
1.8.2.1.2.05	821205010	Breeder pebble know. base & proc spec for DD&DT	02JAN12	20MAR15												
1.8.2.1.2.05	82125COST	Breeder Pebble R&D Costs	02JAN06	20MAR15	▲	▼										
1.8.2.1.2.06 Diagnostics and Instrumentation																
1.8.2.1.2.06	82120600	EM phase/plasma disruptions diagnostics	02OCT06*	31DEC10	▲	▼										
1.8.2.1.2.06	82120610	Neutronics diagnostics & design integration	02OCT06*	20MAR15	▲	▼										
1.8.2.1.2.06	82120620	High T force/strain sensor	02OCT06*	20MAR15	▲	▼										
1.8.2.1.2.06	82156COST	Diagnostics & Instrumentation R&D Costs	02OCT06	20MAR15	▲	▼										
1.8.2.1.2.07 Partially Integrated Tests																
1.8.2.1.2.07.01 Helium Flow & FW Heat Flux Testing																
1.8.2.1.2.07.01	821207100	Mockup Design for Flow & Heat Flux Test	01JUL09	29DEC09						▲	▼					
1.8.2.1.2.07.01	821207110	Mockup Fabrication	30DEC09	30APR10						▲	▼					
1.8.2.1.2.07.01	821207130	Flow & Heat Flux Testing	03MAY10	30JUN10						▲	▼					
1.8.2.1.2.07.01	821707140	Post Analysis & Disposal	01JUL10	02AUG10						▲	▼					
1.8.2.1.2.07.01	821271COST	He Flow & Heat Flux Testing Costs	01JUL09	02AUG10	▲	▼										
1.8.2.1.2.07.02 HCCB Prototype Pressurization Testing																
1.8.2.1.2.07.02	821207200	Pressurization Testing	01MAY12	28JUN12											▲	▼
1.8.2.1.2.07.02	821207240	Post Analysis & Writeup	29JUN12	29AUG12											▲	▼
1.8.2.1.2.07.02	821272COST	HCCB Prototype Testing Costs	01MAY12	29AUG12											▲	▼

Start Date 02JAN06
 Finish Date 31MAR15
 Data Date 02JAN06
 Run Date 29JUN06 10:49

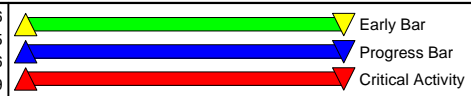


TBM9
 Sheet 20 of 28
 ITER TBM Project
 June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	FY06 FY07 FY08 FY09 FY10 FY11 FY12 FY13 FY14 FY15 FY16											
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	
1.8.2.1.3.01	82130180	Assess Design Issues/Risks	01APR08	31DEC08			▲▼	Assess Design Issues/Risks								
1.8.2.1.3.01	82130190	Finalize Project Mgt Plan	02JUL08	31DEC08			▲▼	Finalize Project Mgt Plan								
1.8.2.1.3.01	82130120	Perform Parametric Analysis	02JAN06	31MAR08	▲▼	▲▼	▲▼	Perform Parametric Analysis								
1.8.2.1.3.01	82131COST	Preliminary Design Costs	02JAN06	31DEC08	▲▼	▲▼	▲▼	Preliminary Design Costs								
1.8.2.1.3.01	82130160	Finalize Design To Specs	01OCT07	30SEP08			▲▼	Finalize Design To Specs								
1.8.2.1.3.02 Detailed Design																
1.8.2.1.3.02	82130220	Complete Design & Design Analysis	02APR09	31MAR10			▲▼	Complete Design & Design Analysis								
1.8.2.1.3.02	82130240	Develop Contract Agreement	30JUN09	28SEP09			▲▼	Develop Contract Agreement								
1.8.2.1.3.02	82130230	Complete Tech Specification Doc's	29SEP09	28SEP10			▲▼	Complete Tech Specification Doc's								
1.8.2.1.3.02	82130250	Establish Material Specifications	30DEC09	01JUL10			▲▼	Establish Material Specifications								
1.8.2.1.3.02	82130260	Develop Fabrication Dwgs	02JUL10	03JAN11			▲▼	Develop Fabrication Dwgs								
1.8.2.1.3.02	82130270	Establish Qualification Criteria & NDT Methods	30SEP10	30JUN11			▲▼	Establish Qualification Criteria & NDT Methods								
1.8.2.1.3.02	82130280	Develop Instrumentation Specifics & Wiring Diag	04JAN11	05APR11			▲▼	Develop Instrumentation Specifics & Wiring Diag								
1.8.2.1.3.02	82130300	TBM Design Modification (if necessary)	01JUL11	29JUN12			▲▼	TBM Design Modification (if necessary)								
1.8.2.1.3.02	82130303	Estab mat'l specs for TBM incl: Ceramic breeder	25OCT11	24APR12			▲▼	Estab mat'l specs for TBM incl: Ceramic breeder								
1.8.2.1.3.02	82130306	Develop TBM fab dwgs & instrumentation diagram	02JUL12	28DEC12			▲▼	Develop TBM fab dwgs & instrumentation diagram								
1.8.2.1.3.02	82130210	Start Detailed Design	02APR09				◆	Start Detailed Design								
1.8.2.1.3.02	82130290	Detailed Design Review		30JUN11			◆	Detailed Design Review								
1.8.2.1.3.02	82132COST	Detailed Design Costs	02APR09	28DEC12			▲▼	Detailed Design Costs								
1.8.2.1.3.03 Title III																
1.8.2.1.3.03	82130320	Fabrication Support/Supervision	01APR10	31MAR14			▲▼	Fabrication Support/Supervision								
1.8.2.1.4 Prototype & TBM Fabrication & Testing																
1.8.2.1.4	8214COST	Fabrication / Procurement Costs	29SEP09	01APR14			▲▼	Fabrication / Procurement Costs								
1.8.2.1.4.01 Call for Tender / Contract Award																
1.8.2.1.4.01	82140100	Bid package preparation and processing	29SEP09	31MAR10			▲▼	Bid package preparation and processing								
1.8.2.1.4.02 Material Procurement																
1.8.2.1.4.02	82140200	Material procurement	01APR10	31MAR11			▲▼	Material procurement								
1.8.2.1.4.03 Tooling & Processing																
1.8.2.1.4.03	82140300	Tooling & processing	01APR10	31MAR11			▲▼	Tooling & processing								

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:49



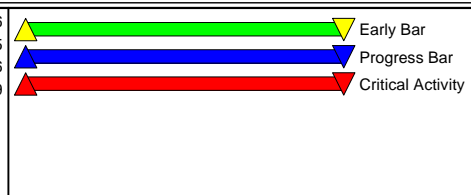
TBM9 Sheet 22 of 28

ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish												
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	
1.8.2.1.4.04 Prototype Fabrication																
1.8.2.1.4.04	82140402	Prototype fabrication	01APR11	29MAR12												▼ Prototype fabrication
1.8.2.1.4.05 Prototype Qualification Tests																
1.8.2.1.4.05	82140505	Prototype qualification tests	30MAR12	28DEC12												▼ Prototype qualification tests
1.8.2.1.4.06 TBM Sub-module Material Procurement																
1.8.2.1.4.06	82140600	Submodule material procurement	30MAR12	28DEC12												▼ Submodule material procurement
1.8.2.1.4.07 TBM Sub-module Fabrication																
1.8.2.1.4.07	82140705	Submodule fabrication	31DEC12	27SEP13												▼ Submodule fabrication
1.8.2.1.4.08 TBM Sub-module Acceptance Tests																
1.8.2.1.4.08	82140805	Submodule acceptance tests	30SEP13	01APR14												▼ Submodule acceptance tests
1.8.2.1.5 TBM Integration & Shipping to ITER																
1.8.2.1.5	8215110	Delivery to Host Party Site	02APR14	02JUL14												▼ Delivery to Host Party Site
1.8.2.1.5.01 Party Integration & Module Acceptance Tests																
1.8.2.1.5.01	82150100	Host Party Integration & Module Acceptance Tests	03JUL14	27FEB15												▼ Host Party Integration & Module Acceptance Tests
1.8.2.1.5.02 Packaging																
1.8.2.1.5.02	82150200	Packaging for Delivery to ITER Site	02MAR15	31MAR15												▼ Packaging for Delivery to ITER Site
1.8.2.2 Ancillary Equipment																
1.8.2.2.1 Administration																
1.8.2.2.1	822100	Administration	02APR09	20MAR15												▼ Administration
1.8.2.2.2 Engineering																
1.8.2.2.2	82221COST	Engineering Costs	01JAN09	31MAR14												▼ Engineering Costs
1.8.2.2.2.01 Preliminary Design																
1.8.2.2.2.01	82220100	Preliminary design	01JAN09	31DEC09												▼ Preliminary design
1.8.2.2.2.02 Detailed Design																
1.8.2.2.2.02	82220200	Detailed design	01JAN10	31DEC10												▼ Detailed design
1.8.2.2.2.03 Title III																
1.8.2.2.2.03	82220300	Title III	03JAN11	31MAR14												▼ Title III
1.8.2.2.3 Fabrication/Procurement																
1.8.2.2.3	822300	Procurement, fabrication & testing	03JAN11	31MAR14												▼ Procurement, fabrication & testing
1.8.2.2.4 Assembly/Installation																
1.8.2.2.4	822400	Assembly & Packaging	01APR14	31MAR15												▼ Assembly & Packaging

Start Date 02JAN06
 Finish Date 31MAR15
 Data Date 02JAN06
 Run Date 29JUN06 10:49

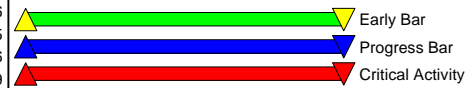


TBM9
 Sheet 23 of 28
 ITER TBM Project
 June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish											
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
1.8.3.1.2 Solid Breeder Thermomechanics															
1.8.3.1.2	18312100	Peb Bed Thermomechanics Models (1.8.2.1.2.2)	02JAN06	31DEC10	▼ Peb Bed Thermomechanics Models (1.8.2.1.2.2)										
1.8.3.1.3 Tritium Permeation															
1.8.3.1.3	18313120	SB Permeation and Release Models (1.8.2.1.2.4)	02OCT06	31OCT11	▼ SB Permeation and Release Models (1.8.2.1.2.4)										
1.8.3.1.3	18313100	PbLi Permeation and Release Models (1.8.1.4.2.1)	01SEP08	30DEC11	▼ PbLi Permeation and Release Models (1.8.1.4.2.1)										
1.8.3.1.4 CAD															
1.8.3.1.4	18314100	DCLL Design Solid Models (1.8.1.1.3.1-2.1)	02JAN06	01SEP10	▼ DCLL Design Solid Models (1.8.1.1.3.1-2.1)										
1.8.3.1.4	18314120	HCCB Design Solid Models (1.8.2.1.3.1-2)	02JAN06	28DEC12	▼ HCCB Design Solid Models (1.8.2.1.3.1-2)										
1.8.3.1.5 Neutronics															
1.8.3.1.5	18315120	HCCB Neutronics Models & Anal (1.8.2.1.3.1-2)	02JAN06	28DEC12	▼ HCCB Neutronics Models & Anal (1.8.2.1.3.1-2)										
1.8.3.1.5	18315100	DCLL Neutronics Models & Anal (1.8.1.1.3.1-2.3)	01MAR06	01SEP10	▼ DCLL Neutronics Models & Anal (1.8.1.1.3.1-2.3)										
1.8.3.1.6 Structural / Stress															
1.8.3.1.6	18316120	HCCB Struct Thermomech. Models (1.8.2.1.3.1-2)	02JAN06	28DEC12	▼ HCCB Struct Thermomech. Models (1.8.2.1.3.1-2)										
1.8.3.1.6	18316100	DCLL Struct Thermomech. Models (1.8.1.1.3.1-2.6)	01MAR06	01SEP10	▼ DCLL Struct Thermomech. Models (1.8.1.1.3.1-2.6)										
1.8.3.1.7 Thermalhydraulics															
1.8.3.1.7	18317110	HCCB He Loop Thermalhyd Models (1.8.2.1.3.1-2)	02JAN06	28DEC12	▼ HCCB He Loop Thermalhyd Models (1.8.2.1.3.1-2)										
1.8.3.1.7	18317100	DCLL Loop Thermalhyd Models (1.8.1.1.3.1-2.5)	01MAR06	01SEP10	▼ DCLL Loop Thermalhyd Models (1.8.1.1.3.1-2.5)										
1.8.3.2 Data, Databases & Constitutive Relations															
1.8.3.2.1 RAFS Property Data															
1.8.3.2.1	18321110	Joint Properties	02OCT06	30SEP10	▼ Joint Properties										
1.8.3.2.1	18321100	Base Metal Properties (1.8.1.1.2.4.3-6)	02OCT06	30DEC10	▼ Base Metal Properties (1.8.1.1.2.4.3-6)										
1.8.3.2.1	18321120	Irradiated Properties	01JUL08	30JUN10	▼ Irradiated Properties										
1.8.3.2.2 SiC FCI property data															
1.8.3.2.2	18322110	Irradiated Properties	02OCT06	30DEC11	▼ Irradiated Properties										
1.8.3.2.2	18322100	Candidate FCI Properties (1.8.1.1.2.2.2-3)	02OCT06	29MAR13	▼ Candidate FCI Properties (1.8.1.1.2.2.2-3)										
1.8.3.2.3 Solubility data in PbLi															
1.8.3.2.3	18323100	Bi-metallic Systems	02JUL07	30JUN08	▼ Bi-metallic Systems										
1.8.3.2.3	18323110	SiC Solubility & Corrosion Correl (1.8.1.1.2.3.3)	01JUL08	30JUN10	▼ SiC Solubility & Corrosion Correl (1.8.1.1.2.3.3)										

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:49



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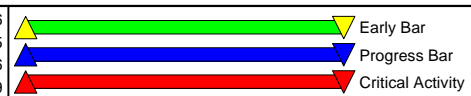
Sheet 25 of 28

ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish												
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	
1.8.3.2.4 He Thermalhydraulics																
1.8.3.2.4	18324100	HX & dP Roughness Correlations (1.8.1.1.2.5.1)	01JUL08	21JUN10												
1.8.3.2.5 Be/FS joint data																
1.8.3.2.5	18325100	Base Joint Strength Data (1.8.1.1.2.7.1)	01MAR07	31AUG07												
1.8.3.2.5	18325110	Thermal Contact Data	03SEP07	30JUN09												
1.8.3.2.5	18325120	Irradiated Properties Data (1.8.1.1.2.7.4)	01JUL08	30JUN09												
1.8.3.2.6 Tritium Permeation Data																
1.8.3.2.6	18326130	Tritium Release in SB	02OCT06	31OCT11												
1.8.3.2.6	18326100	PbLi Mass Transfer & Chem Data (1.8.1.4.2.2)	03OCT07	01FEB11												
1.8.3.2.6	18326110	PbLi/T Permeation Data	02SEP08	29JUN11												
1.8.3.2.6	18326120	He/T Permeation Data	02SEP08	29JUN11												
1.8.3.2.7 Pebble Bed Thermomechanical Data																
1.8.3.2.7	18327100	Solid Breeder Bed Effective Prop Data (1.8.2.1.2)	02JAN06	31DEC10												
1.8.3.2.7	18327110	Beryllium Bed Effective Property Data (1.8.2.1.2)	02JAN06	31DEC10												
1.8.3.3 Data / Codes Integration																
1.8.3.3.1 Integrated Strategy Development																
1.8.3.3.1	18331100	Technical planning	03JUL06	29DEC06												
1.8.3.3.1	18331110	Survey of simulation capabilities	03JUL06	29JUN07												
1.8.3.3.1	18331120	Document report on strategy	01JAN07	29JUN07												
1.8.3.3.1	18331COST	Integrated Strategy Devel Costs	03JUL06	29JUN07												
1.8.3.3.2 Executive Routines and Data Structure																
1.8.3.3.2	18332110	Coding CAD interface	02JUL07	28DEC07												
1.8.3.3.2	18332100	Coding executive routines	02JUL07	27JUN08												
1.8.3.3.2	18332120	Testing with multiple CAD examples	31DEC07	27JUN08												
1.8.3.3.2	18332COST	Executive Routine Costs	02JUL07	27JUN08												
1.8.3.3.3 Integration of Simulation Capabilities																
1.8.3.3.3	18333100	Interface & adaptation for Thermofluid MHD	30JUN08	28AUG09												
1.8.3.3.3	18333110	Interface & adaptation for Thermalhydraulics	30JUN08	28AUG09												
1.8.3.3.3	18333120	Interface & adaptation for Structural response	31AUG09	29JUN11												

Start Date 02JAN06
 Finish Date 31MAR15
 Data Date 02JAN06
 Run Date 29JUN06 10:49



TBM9
 Sheet 26 of 28
 ITER TBM Project
 June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	FY06 FY07 FY08 FY09 FY10 FY11 FY12 FY13 FY14 FY15 FY16										
					Gantt Chart										
1.8.3.3.3	18333130	Interface & adaptation for Neutronics	30JUN11	27APR12	Interface & adaptation for Neutronics										
1.8.3.3.3	18333140	Interface & adaptation for Mass Transfer	30APR12	27JUN13	Interface & adaptation for Mass Transfer										
1.8.3.3.3	18333150	Coupled execution procedure	28JUN13	01MAY14	Coupled execution procedure										
1.8.3.3.3	18333160	Continued code & execution optimization	02MAY14	03MAR15	Continued code & execution optimization										
1.8.3.3.3	18333COST	Integrated Simulation Costs	30JUN08	03MAR15	Integrated Simulation Costs										
1.8.3.3.4 Integrated Code Benchmarking & Application															
1.8.3.3.4	18334100	DCLL FW Heat Flux mockup tests	05JUL10	02MAY11	DCLL FW Heat Flux mockup tests										
1.8.3.3.4	18334110	DCLL PbLi Flow & Heat Transfer mockup tests	03MAY11	31OCT12	DCLL PbLi Flow & Heat Transfer mockup tests										
1.8.3.3.4	18334120	DCLL Prototype Pressurization Tests	01MAR12	31OCT12	DCLL Prototype Pressurization Tests										
1.8.3.3.4	18334130	HCCB FW Heat Flux Mockup Tests	01MAR12	31OCT12	HCCB FW Heat Flux Mockup Tests										
1.8.3.3.4	18334140	DCLL Tritium mockup tests	01NOV12	28FEB14	DCLL Tritium mockup tests										
1.8.3.3.4	18334150	DCLL ITER H-H, D-D, D-T Simulations	02MAY14	31MAR15	DCLL ITER H-H, D-D, D-T Simulations										
1.8.3.3.4	18334160	HCCB ITER H-H, D-D, D-T Simulations	02MAY14	31MAR15	HCCB ITER H-H, D-D, D-T Simulations										
1.8.3.3.4	18334COST	Integrated Code Benchmarking Costs	05JUL10	31MAR15	Integrated Code Benchmarking Costs										
1.8.4 Project Support															
1.8.4	1841100	US TBM External Review	16AUG06*		US TBM External Review										
1.8.4	1841110	CD0 - Approve Mission Need	02OCT06*		CD0 - Approve Mission Need										
1.8.4	1841120	CD1 - Approve Alt Selection & Cost Range	01MAR07*		CD1 - Approve Alt Selection & Cost Range										
1.8.4	1841130	CD2A - Approve Long Lead Procurement Budget	03DEC07*		CD2A - Approve Long Lead Procurement Budget										
1.8.4	1841140	CD2B - Approve Performance Baseline	03DEC07*		CD2B - Approve Performance Baseline										
1.8.4	1841150	CD3A - Approve Start of Long Lead Procurements	01JUL08*		CD3A - Approve Start of Long Lead Procurements										
1.8.4	1841160	CD3B - Approve Start of Construction	01OCT08*		CD3B - Approve Start of Construction										
1.8.4	1841170	CD4 - Approve Start of Operations/ Proj Closeout	01APR15*		CD4 - Approve Start of Operations/ Proj Closeout										
1.8.4.1 Administration															
1.8.4.1	1841190	TBM Project Management	02JAN06*	20MAR15	TBM Project Management										
1.8.4.2 TBWG / Parties Interface															
1.8.4.2	1842200	TBWG / Parties Interface	02JAN06*	20MAR15	TBWG / Parties Interface										
1.8.4.3 Safety & Regulatory Support															
1.8.4.3	1843110	Provide Final TBM Safety Input to ITER PSR		01JAN07*	Provide Final TBM Safety Input to ITER PSR										

Start Date	02JAN06		Early Bar
Finish Date	31MAR15		Progress Bar
Data Date	02JAN06		Critical Activity
Run Date	29JUN06 10:49		

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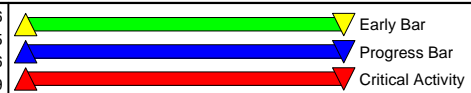
Sheet 27 of 28

ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved

WBS	Activity ID	Activity Description	Early Start	Early Finish	Fiscal Year												
					FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16		
1.8.4.3	1843120	Provide TBM Safety Input to ITER FSR		01JAN13*												◆ Provide TBM Safety Input to ITER FSR	
1.8.4.3	1843125	Complete Safety & Regulatory Support		31DEC13												◆ Complete Safety & Regulatory Support	
1.8.4.3.1 Regulatory Support																	
1.8.4.3.1	1843130	Interact w/ CEA & ITER IT - Estab.License reqmts	02JAN06	31DEC07	▲											▼ Interact w/ CEA & ITER IT - Estab.License reqmts	
1.8.4.3.1	1843140	Present Safety results to ITER IT	01JAN07	31DEC13		▲										▼ Present Safety results to ITER	
1.8.4.3.1	1843150	Present/defend TBM safety case to Reg. Officials	01OCT09	30SEP11						▲						▼ Present/defend TBM safety case to Reg. Officials	
1.8.4.3.1	8431COST	Regulatory Support Costs	02JAN06	31DEC13	▲											▼ Regulatory Support Costs	
1.8.4.3.2 Safety Analysis & Reporting																	
1.8.4.3.2	1843220	Qualify Safety Codes	01JUN06	31DEC12		▲										▼ Qualify Safety Codes	
1.8.4.3.2	1843200	Perform Safety analyses	01JAN07	30SEP09			▲									▼ Perform Safety analyses	
1.8.4.3.2	1843230	Preliminary Safety Dossier & licensing doc's.	01OCT08	31DEC10						▲						▼ Preliminary Safety Dossier & licensing doc's.	
1.8.4.3.2	1843240	Final Safety Dossier & licensing doc's.	01NOV11	31DEC13											▲	▼ Final Safety Dossier & licensing doc's.	
1.8.4.3.2	1843210	Finalize Licensing analyses	02JAN12	28JUN13											▲	▼ Finalize Licensing analyses	
1.8.4.3.2	8432COST	Safety Analysis & Reporting Costs	01JUN06	31DEC13	▲											▼ Safety Analysis & Reporting Costs	
1.8.4.3.3 Safety Design Integration																	
1.8.4.3.3	1843300	Communicate Safety Rqmts to TBM design team	02JAN06	30JAN09	▲											▼ Communicate Safety Rqmts to TBM design team	
1.8.4.3.3	1843310	Give Safety rsults to des tm & write DDD safety s	02JAN06	28JUN13	▲											▼ Give Safety rsults to des tm & write DDD safety s	
1.8.4.3.3	8433COST	Safety Design Integration Costs	02JAN06	28JUN13	▲											▼ Safety Design Integration Costs	
1.8.4.4 Quality Assurance Officer																	
1.8.4.4	1844100	Quality Assurance Officer	02OCT06*	20MAR15												▲	▼ Quality Assurance Officer

Start Date 02JAN06
Finish Date 31MAR15
Data Date 02JAN06
Run Date 29JUN06 10:49



TBM9
Sheet 28 of 28
ITER TBM Project
June 28 2006 Project Detail Schedule

Date	Revision	Checked	Approved