

## **The Design Review**

### Norbert Holtkamp (PDDGN) July 11-13 Cadarache





### **Status**

- Today different procurement packages are defined to a different extend.
- The scope of the ITER design is sufficiently defined so that
  - their value is / can be estimated
  - changes in urgent procurements can be made understanding the implications for later procurements.
- The last approved baseline is from 2001 and an updated (but nor approved) baseline exists from 2004.



# The Goal and the Tools for the Design Review

- The goal for the review is to resolve major presently open design questions in order to be able to prepare the procurement packages for the WBS elements.
- The design review will use a prioritized list of actions and an integration task force will develop a risk assessment that will guide the order of prioritized items. Management will determine appropriateness of priority.
- The issues card and their rate of completion will provide the management tool to determine the timely completion of the review.



### **The Framework Review**

- The scope of the review is defined in the document and focuses on proposed changes only if they reduce cost, improve schedule, improve performance, reduce risk or resolve an integration issue.
- Within the scope defined above, a Party can propose a change, provided that:
- the in-kind value is not changed, or,
  - the extra cost is compensated by cost reduction in other systems
- The use of contingency to cover cost increases is LAST option.
- The Design Review is accompanied by regular progress reviews to a technical advisory committee reporting to the DG and PDDG.



### The Design Progress Review

- A review will be held towards the end of the year.
- A four day review which goes through:
  - Mainly technical but also managerial / organizational issues.
- Will seek advise from international body of fusion experts.
- IO as well as DA's are expected to present progress of technical and procurement activities.
- The design review process as well as the regular progress reviews should allow to freeze a new baseline during 2007.





## Risk and opportunity management

A procedure to keep under control all risks related to the construction and operation of the machine (including over cost or delay) and to exploit the opportunities for cost reduction (Value engineering) is described in the document:

MQP Risk Management Plan (ITER\_D\_22F4LE)

- It includes the following activities :
  - Risks/Opportunities Identification
  - Risks/Opportunities Analysis
  - Risks/Opportunities Planning
  - Risks/Opportunities Tracking
  - Risks/Opportunities Controlling
  - Risks/Opportunities Communicating and Documenting
- The Risk and opportunity identification is done though the issues management procedure.





### **Issues Identification**

We started this process end of 2004 with a set of broad scope Design reviews, to initiate a critical review of the status of the design and to organise the further work.

The issues cards have been reviewed and prioritized with the IT leader and since then at Technical coordination meetings

Issues can be raised by all People involved in the ITER activities (ITER ORG and ITER PTs/DAs members.

The issue are classified according to the WBS structure and the Responsible officer of that activity become the issue RO.

244 Issue cards have been proposed so far and stored in a database.

<u>E</u> dit ⊻iew Ins	ert F <u>o</u> rma	t <u>T</u> ools	T <u>a</u> ble	<u>W</u> indow	Help		Type a question for he	lp 🔸 🗙
		ISS	UE -(	Card		Version 27 Ap	mil 2005	
Issue Number: (to b	e filled by D	1010						
Issue Status: (delete as	and the second second second			ed TCM for s	tudy)	On-Hold (not		
In-formulation (be				vision issued ne reported a		Accept Risk Dropped	(Include in RMP)	
(this part to be filled I	by the submi		00000	no roponea (	at ronny	Dioppor		
Submitter: (Name o	f the submitter	2				Date Submitted		
Title: (Issue Statement)								
Issue Description: (comprehensive description of the issues)								
Main system affected	(WBS)	<b>R.O.</b> ()	VBS R.C	).)	Other S	systems or comp	onents affected	
	άγ,							
Awnon, course of a								
Owner: (Person who fo Proposed resolution	nows this (C)	Importa	t Monite		-	Demerits		
1.		+	11 11161 116			•		
		•				•		
2.		:				•		
3.		-				•		
		•	15 195	wa water it		•		
Background informatio			ional ex,	planation,	)			
References:	(link to	DM)						
(after review at TCM	- to be filled	by D(D)						
Impact on schedule: H	igh, Medium, Lov	Impact	on design:	High, Medium	i. Low	Impact on cost	High, Medium, Low	
WBS interfaces				<b>Related Iss</b>	ue cards	3		
Comments								
Decisions on res	lution act	ions			(Stati	us from other L	)atabases)	
Ref. To DCR:	DCR num	330-9	er Statu		Status			
Ref to design activity	(IT interna			0)	Status			
Ref to RED or design tasks	(Approved	Vpropose (	í tasks) 		Status			
Ref. To Risk management Plan					8tatus			
Next review date:			Commen	ts (spa	ce open i	for comment foru	m)	<b>v</b>
								0 ¥
								•



### **Risk Analysis**

*Impact* (the severity if risk should materialize)

High (3)Descope, or extensive workaround required.Potential Project cost increase on baseline of above 10<br/>kIUAMore than 6 months delay in project milestone

- Moderate (2) Some adjustments to baseline are required Potential Project cost increase over baseline of 1 kIUA and 10 kIUA More than 1 month delay in project milestone (but less than 6 months)
- Low (1) Baseline approach retained, with minor modifications. Potential Project cost increase over baseline of less than 1 kIUA Few weeks of impact on the project milestone.





#### **Risk Analysis**

**Probability** (the likelihood of risk occurrence)

High (3)	=	Very Likely	More than 90%
Moderate (2)	=	Likely	more than 10% to 90%
Low (1)	=	Not Likely	up to 10 %

### Time (time to start action or mitigation)

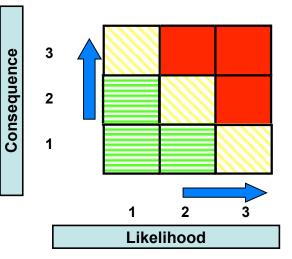
Near Term (N)	=	<3 months
Mid Term (M)	=	3 months to 1 year
Far Term (F)	=	>1 year





### **Risk Analysis**

Risk type		
High (3)	Very likely	> 10%
Moderate (2)	Likely	>10% up to 90%
Low (1)	Unlikely	> 90%



	Low (1)	Moderate (2)	High (3)
Technical	minor modifications required	Some adjustments to baseline required	Descope, or extensive workaround required
Cost	less than 1kIUA	between 1 and 10 kIUA	above 10 kIUA
Schedule impact	+week	>1month < 6 months	> 6months

