

Meeting Notes

	Respon.	Item	Due Date	Status Date	Status / Notes
▼ 0. New					
		New March 18th		Mar 18, 2009	
		<ul style="list-style-type: none"> Tom Egebo has completed the CS Upgrade CDR Plan. Copy attached, will begin tracking status against this plan next week. 		Mar 18, 2009	
	Zhang	<ul style="list-style-type: none"> Han presented the latest outer TF leg support analysis. Looks like cross bracing is only needed in four locations. 	Mar 25, 2009	Mar 18, 2009	The latest analysis shows that with some simple "ring" reinforcement at the TB level and diagonal bracing at four bays we reduce the outer TF connection reactions to manageable levels. Han, just need loads in ring and cross brace members. Dudek to provide cross section information of stainless steel members for next step analysis
	Dudek	<ul style="list-style-type: none"> OH Coil Cooling needs to be optimized 		Mar 18, 2009	Can cooling time be reduced from 20 minutes to 15 minutes or 10 minutes? (Brooks)
	Dudek	<ul style="list-style-type: none"> Need to develop method to seal existing leaks in Outer TF Leg cooling passages Need to develop TF turn to turn scheme 		Mar 18, 2009	Outside company has sealing method.
	Dudek	<ul style="list-style-type: none"> Need invite list for Downselect meeting 	Mar 19, 2009	Mar 18, 2009	Anderson, Paul- Brad Nelson - Dave Williamson - Jon Menard - John Schmidt - Wayne Reirsen - Bob Parsells - Kalish - Brooks -
	Neumeyer	<ul style="list-style-type: none"> New data indicates PFC's and Divertor may require more analysis to determine requirements. Heat load on the CS Tiles may require water cooling which is a significant cost impact. 		Mar 18, 2009	Need to incorporate what is needed into the GRD
▼ 1. Project					
	Chrzanowski	<ul style="list-style-type: none"> Status of designer assignments 	Ongoing	Mar 18, 2009	New designer on Monday, 2 more reqs have been cut. 2 new designers electrical on the way, 1 hired, 2nd interviewing. Upcavage to join in April on outer TF Leg structures. 2 electrical and 2 mechanical.
	Dudek	<ul style="list-style-type: none"> Will need additional office space for new engineers 	Mar 21, 2009		
▼ 2. Design Requirements					
	Neumeyer	<ul style="list-style-type: none"> A more limited OH and PF operating envelope needs to be developed for the design basis assumption 	GRD updtde: 2/28 Menard equilibria: 3/15 Plan by 4/15	Mar 18, 2009	Received feedback from Rajesh. Still needs some work.
	Neumeyer	<ul style="list-style-type: none"> A coil protection system needs to be incorporated into the project plans to ensure that the envelope is suitably constrained. 		Mar 18, 2009	In progress. Not included in the current plans, but will be estimated into the CDR plan. RIS replacement? Initiated Neumeyer to come up with a plan Action:Neumeyer
▼ 3. TF Bundle					
	Woolley	<ul style="list-style-type: none"> Further analysis is needed to confirm stress in turn to turn insulation is acceptable <ul style="list-style-type: none"> <i>Additional analysis should be performed to determine if the same is true without any torsional restraint at the ends of the TF bundle, i.e. if the spline/umbrella load path is eliminated</i> 	Feb 18, 2009	Mar 11, 2009	Completed analysis of OOP EM forces. Working on the memo.
	Chrzanowski	<ul style="list-style-type: none"> Pricing of the TF Bundle conductors 	Mar 15, 2009	Mar 18, 2009	(Lavada still working on this) Lavada to give us price on the 80 TF Conductors, Extruded and machined. Also looking into getting machined conductors from Zenex precision (price this week or early next week (Ongoing))
	Hatcher	<ul style="list-style-type: none"> Disruption loads have not yet been factored in. The application of a dynamic load factor less than 1.0 seems appropriate due to the impulse nature of the disruption loading. 	Mar 22, 2009	Mar 18, 2009	Started running static cases so far, need to add current transients. First look at results next week.
▼ 4. TF Bundle Joint Connection					
	Chrzanowki	<ul style="list-style-type: none"> Four TF Joint concepts that were presented last week have been modeled by Bruce Paul 	Ongoing	Mar 18, 2009	Titus reviewed the latest updates to his concept
	Woolley	<ul style="list-style-type: none"> Are bolts below the flex accessible? <ul style="list-style-type: none"> What design and fabrication method is appropriate for the flex connector, providing the necessary IP and OOP flexibility, while being able to withstand the forces without fatigue failure? (Braid, Cable or WJ Connection?) 	TBD		Requires concept to determine
	Woolley	<ul style="list-style-type: none"> What joint/flag flexibility is appropriate, in-plane (IP)? 	Feb 11, 2009		
	Woolley	<ul style="list-style-type: none"> What joint/flag flexibility is appropriate, out-of-plane (OOP)? 	Feb 11, 2009		
	Woolley	<ul style="list-style-type: none"> How does the OOP of flexibility relate to the gap between the flex connector and the OOP support structure? 	Feb 11, 2009		
	woolley	<ul style="list-style-type: none"> Options for the female side of the bolting need to be assessed, including use of inserts versus the use of bolting plates embedded in the copper <ul style="list-style-type: none"> <i>It would be desirable for the bolts to provide both contact pressure and a reaction against shear loading due to the vertical force on the flex</i> 			
	woolley	<ul style="list-style-type: none"> Document OOP and IP loading 	Feb 18, 2009		
▼ 6. VV Structure					
	Irv Zatz	<ul style="list-style-type: none"> To look into the work needed to run the 360 deg model on the Cluster to accelerate the results 	Mar 12, 2009	Mar 11, 2009	Dudek spoke with Zatz, who will investigate how to get software onto the server to run.
	Heitzenroeder	<ul style="list-style-type: none"> Enhance the VV midplane strength by welding a band of material around the inner surface of the midplane, where interferences are relatively minor. 	Ongoing	Mar 18, 2009	Need to rerun with 360 degree model to refine the analysis.
▼ 7. Cooling Water					
	Dudek	<ul style="list-style-type: none"> Need to assign engineer to perform this work 	Feb 28, 2009	Feb 15, 2009	2/15: New personnel requisition or BOA will be used to fill.
▼ 8. Completed					
		Titus TF Flex Concept		Mar 11, 2009	Titus reviewed the latest updates to his concept, improved to provide better access, IP Flexibility and OOP support.
	Neumeyer	Joint Down select meeting has been set for Monday, 3/23 @ 2:30 Simmons reported new docs have been posted to the website including the CD-0 docs and meeting notes		Mar 11, 2009 Mar 11, 2009	
	Perry	Photos of TF Outer Leg Support Mockups	Completed	Mar 11, 2009	New 3/1: Reviewed photos of the Outer TF leg mockups. Looks like the members as modeled would fit in almost all of the locations around the machine except for the busswork tower bay.
	Heitzenroeder	Need to Enhance the existing turnbuckle system to improve its strength and stiffness	Ongoing	Mar 11, 2009	Han to modify model to move TF Leg support ring at the level of the existing turnbuckles and to run
	Heitzenroeder	Need to Enhance the umbrella structure to reduce stresses due to twist and bulge by adding welded or bolted material	Ongoing	Mar 18, 2009	Looks like the VV stresses have improved with the latest refinements to the model. An error in the application of the EM load was found on the turnbuckle inputs, with the proper inputs maximum stress in the vacuum vessel of the NB port sector was reduced to 58.6 ksi, a decrease of 32% from the previous calculation.
	Zhang	TF Outer Leg Bracing: Neumeyer requested moving the location of the cross members vertically on the legs (ring to turnbuckle elev.) to determine if the benefit improves. Also try the supports in only 4 bays.	Mar 19, 2009	Mar 18, 2009	The latest analysis shows that with some simple "ring" reinforcement at the TB level and diagonal bracing at four bays we reduce the outer TF connection reactions to manageable levels. Han, just need loads in ring and cross brace members