

Meeting Notes

	Item	Respon.	Date Assigned	Due Date	Status	Date Closed	Status Date	Status / Notes	
▼ 0. New									
	New May 13th								
	<ul style="list-style-type: none"> Designers fully booked. Titus next week to return to PPPL to work on developing a plan to bring all of the models together. 	Chrzanowski					May 13, 2009	Have begun to piece together the models from individuals working on the analysis.	
	<ul style="list-style-type: none"> HAN needs to run confirmation of hoop tension by adding in the vertical field from Hatcher once he gets the coil dimensions from Bruce Paul (Jim C. to take action) 	Chrzanowski					May 13, 2009	Hatcher just iterating data with designer to develop the model. Han to run stress pass to compare with Titus's results in same area. (Looking for maximum vertical field)	
	<ul style="list-style-type: none"> SRI ran the OH Hoop stress model. Stresses are high at more than 160 Mpa. 						May 13, 2009	New Run indicates stresses that are acceptable with the insulation between the OH and TF bundle.	
	<ul style="list-style-type: none"> Titus reran the TF Bundle shear stress due to thermal with the top trimmed to see if stresses improved. They improved but not enough. 						May 13, 2009	Stresses improved but still need more. Will rerun with more of a trim. Will also check temperature profile to verify.	
▼ 1. Project									
	<ul style="list-style-type: none"> SOFE paper (Neumeyer) being submitted Statement of Work for power systems PSCAD simulation tool outsourcing 	Neumeyer			Working		May 6, 2009 Apr 29, 2009		
▼ 2. Design Requirements									
	<ul style="list-style-type: none"> A more limited OH and PF operating envelope needs to be developed for the design basis assumption 	Neumeyer	Mar 1, 2009	Apr 15, 2009	Working		May 6, 2009	Made a lot of progress need one more meeting.	
	<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. 	Neumeyer	-	Plan by 5/1	Working		Apr 8, 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									
	<ul style="list-style-type: none"> Meighan working on Keystone tests of the OH conductor to verify as extruded shape HAN has developed a model of the TF Turn with cooling 						May 6, 2009 Apr 29, 2009		
	<ul style="list-style-type: none"> JIM- Conductor drawing has been changed to make it easier to mfr. Shorten pointed section to simplify extrusion. Will be sent out for quotes. OH Coil Cooling/Conductor needs to be optimized 	Chrzanowski Dudek		May 5, 2009 May 15, 2009			May 13, 2009 May 13, 2009	Luvada can Manufacture the conductor. Cost is \$5/#. Still need to machine the final dimensions. Also have another vendor that can machine conductor. Received quote from Luvada. Can cooling time be reduced from 20 minutes to 15 minutes or 10 minutes? (Need to reassign: Ali Zoffighari)	
	<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. 	Hatcher	-	Apr 2, 2009	Working		May 6, 2009	Rerunning with new data, about half way through runs. Look pretty good. In the process of running the benchmarks against actual NSTX data.	
▼ 4. TF Bundle Joint Connection									
	<ul style="list-style-type: none"> Pete working on a flexible version of the connection and look at wedge pressure in the hub. 	Titus			Working		Apr 29, 2009	First iteration of analysis submitted in email on 4/20/09. Need to check HAN's model to see if the torque becomes an issue in the bundle with a slip plane in the insulation at the high stress region.	
	<ul style="list-style-type: none"> Develop concept #4 including fastener details and design of outer loop with adequate cross section so that it can be analyzed using ANSYS 	Heitzenroeder	Apr 6, 2009		working		Apr 23, 2009		
	<ul style="list-style-type: none"> Archetype (bolted joint consultant) will be contacted to review joint design Document OOP and IP loading 	Hetizenroeder Woolley	Apr 8, 2009 -	May 15, 2009 Feb 18, 2009			Apr 8, 2009	Need to complete joint detail	
▼ 5. Umbrella & Outer TF Leg									
	<ul style="list-style-type: none"> The first concept of the NSTX TF Outer Leg has no insulating breaks. Do we need to insulate?? Need to develop method to seal existing leaks in Outer TF Leg cooling passages Use borescope to view the inside of the leak in the TF Outer leg cooling passage (during the outage). Han presented the latest outer TF leg support analysis. Looks like cross bracing is only needed in four locations. 						Apr 29, 2009 May 13, 2009 Apr 8, 2009 May 13, 2009	Menard can calculate the impact once he gets the resistance of the structure Quote has been received. Plan on doing this during an outage. For now we will stay with the existing "diamond brace" design. Mangra looking at space needs and has some ideas on how to minimize space impact of the structural design.	
									(This analysis still needs to be checked) 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 provided cross section information of stainless steel members for next step analysis
▼ 6. VV Structure									
	<ul style="list-style-type: none"> SRI reran the VV stresses using the gusset. Shows little change in stresses. Will try to rerun. HM Has all of the structure modeled and ran a dynamic analysis with the old pulse data. Initial results indicate a damping of the forces. Enhance the VV midplane strength by welding a band of material around the inner surface of the midplane, where interferences are relatively minor. 						May 6, 2009 Apr 8, 2009 Mar 25, 2009	Danny to get involved with gusset and reinforcement of the VV. Working with Han on the one turn model. Making good progress on the analysis list. A 2 msec disruption yields factor of less than 0.5, a 5 msec disruption is about 1.0. Need to look at the strength of the vv with ports (Global Model) Need to rerun with 360 degree model to refine the analysis.	
▼ 8. Completed									
	<ul style="list-style-type: none"> Chrzanowski to ramp up designers to meet the project resource requirements 	Chrzanowski	-	Completed	Working		May 6, 2009	Full complement of designers on board	
	Martinez and Turek is interested in TF Bundle conductor fabrication (E-beam welding and Machining)	TBD	-				Apr 1, 2009		
	Pricing of the TF Bundle conductors	Chrzanowski	-	3/15/09 12:00	A Complete	4/8/09 12:00 A	Apr 8, 2009	Cancelled contract see new path forward above	
	EWI interested in doing a friction stir weld for the TF bundle. Have 3 FSW machines. Would be able to perform tests on the weld. Plan on sending out sample drawing with SOW to review legal boilerplate.	Hetizenroeder	-		Complete	4/23/09 12:00 A	Apr 23, 2009	RFQ is out to EWI.	
	Get TF joint #4 ANSYS analysis underway	Heitzenroeder	4/6/09		Complete	Apr 6, 2009	Apr 6, 2009	Titus memo 4/7.	
	Need analysis of current diffusion, temperature rise on bundle (Titus)	Titus	-	TBD (waiting for BOA)	Complete	Apr 1, 2009	Apr 1, 2009	Issued memo for in plane loads concludes heating, and stresses are not of concern. Needs to be checked.	
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