## **Meeting Notes**

| Meeting Notes               | Item   | Respon.                               | Date          | Due Date     | Status Date Status / Notes  |
|-----------------------------|--|---------------------------------------|---------------|--------------|---|
|                             | ILCIII   | nespon.                               | Assigned      | Due Date     | Status Date Status / Notes  |
| ▼ 0. New                    |  |                                       |               |              |   |
| <u> </u>                    | <ul> <li>New Jun 10th</li> <li>New PF1A, B &amp; C dimensions are being laid out by Lew Morris for</li> </ul>  |                                       | Jun 10, 2009  |              | Jun 10, 2009  |
|                             | review by Neumeyer, Menard, et al.   |                                       | 0dii 10, 2000 |              | oun 10, 2000  |
|                             | <ul> <li>PF 3 +/- 480 may be driving the stresses in the ring. Need to check the</li> </ul>  | Zhang                                 | Jun 10, 2009  |              | Jun 10, 2009  |
|                             | stresses in the TF Coil. Han will add tangential tension spokes to   |                                       |               |              |   |
|                             | restrict the rotation of the ring assembly. Dudek to set up tour of the  |                                       |               |              |   |
|                             | machine with Titus and Han to look for best locations for restraints   |                                       |               |              |   |
|                             | (during maint weeks)   |                                       |               |              |   |
|                             | Han now has the latest set of currents, displacements are on the order   | Perry                                 | Jun 10, 2009  |              | Jun 10, 2009  |
|                             | of 16-17mm. Is that a concern for the machine access? What is  |                                       |               |              |   |
|                             | allowable?   |                                       |               |              |   |
|                             | Reviewed the list of analysis and clarified the requirements for the   |                                       |               |              | Jun 10, 2009  |
|                             | CDR. By Monday should have a new list for Strykowsky to incorporate  |                                       |               |              |   |
|                             | <ul><li>in the CDR Plan.</li><li>Tom Willard is working on the local mechanical details of the bolted</li></ul>  | Willard                               | Jun 10, 2009  |              | Jun 10, 2009  |
|                             | connection, flag. Using .3 Tesla field from Hatcher.   | · · · · · · · · · · · · · · · · · · · | 0dii 10, 2000 |              | 5411 16, 2666   |
| ▼ 1. Project                | connection, hag. Osing to resid held from Flatcher.  |                                       |               |              |   |
|                             | Statement of Work for power systems PSCAD simulation tool  | Ramakrishnan                          |               |              | Jun 10, 2009 Still in the works   |
|                             | outsourcing  |                                       |               |              |   |
|                             | t g the transfer to the transf | Chrzanowski                           |               |              | May 27, 2009 Working setting up for tests. Ordering material.   |
|                             | extruded shape  • Disruption loads have not yet been factored in The application of a  | Hatchor                               |               | Apr 2, 2009  | lun 10, 2009 Marking on the regults should transmit regults today   |
|                             | <ul> <li>Disruption loads have not yet been factored in. The application of a<br/>dynamic load factor less than 1.0 seems appropriate due to the impulse</li> </ul>  | Hatcher                               | <del>-</del>  | 741 Z, ZUUS  | Jun 10, 2009 Working on the results should transmit results today   |
|                             | nature of the disruption loading.  |                                       |               |              |   |
| ▼ 2. Design Requirements    | nature of the disruption loading.  |                                       |               |              |   |
|                             | A more limited OH and PF operating envelope needs to be developed  | Neumeyer                              | Mar 1, 2009   | Apr 15, 2009 | May 6, 2009 Made a lot of progress need one more meeting.   |
|                             | for the design basis assumption  |                                       |               |              |   |
|                             | <ul> <li>A coil protection system needs to be incorporated into the project plans</li> </ul>   | Woolley                               | Jun 10, 2009  | Jun 30, 2009 | Jun 10, 2009 Reassigned to Woolley  |
| ▼ 2. Analysis               | to ensure that the envelope is suitably constrained.   |                                       |               |              |   |
| ▼ 3. Analysis               | HAN has developed a model of the TF Turn with cooling  | Han                                   |               |              | Apr 29, 2009 Need to have Neumeyer verify the currents that HAN is  |
|                             |  |                                       |               |              | using in the model  |
|                             | <ul> <li>Document OOP and IP loading</li> <li>Ali Z working on the OH Cooling analysis. Expect to be done by end of</li> </ul>   | Titus                                 | Jun 30, 2009  |              | Jun 10, 2009 Initial results show longer cooling times with .188 dia and  |
|                             | June   | <u>-</u>                              |               |              | 400 psig. Will look at effect of taking into account the turn   |
|                             |  | Denault                               | Jun 24, 2009  |              | to turn heat transfer.  Jun 10, 2009  |
|                             | whether it can be modified for 600 psig head   | Donault                               | 0011 E4, 2000 |              | oun 10, 2000  |
|                             | <ul> <li>HAN needs to run confirmation of hoop tension by adding in the vertical</li> </ul>  | Chrzanowski                           |               |              | May 13, 2009 Hatcher just iterating data with designer to develop the   |
|                             | field from Hatcher once he gets the coil dimensions from Bruce Paul  |                                       |               |              | model. Han to run stress pass to compare with Titus's results in same area. (Looking for maximum vertical field)                  |
|                             | (Jim C. to take action)  |                                       |               |              | results in same area. (Looking for maximum vertical field)  |
|                             | SRI ran the OH Hoop stress model. Stresses are high at more than   | Sri                                   |               |              | Jun 10, 2009 May extract a few more things from the model but this work will be complete with writeup. New Run indicates stresses |
|                             | 160 Mpa.   |                                       |               |              | that are acceptable with the insulation between the OH and TF bundle.   |
|                             | Han presented the latest outer TF leg support analysis. Looks like   | Zhang                                 | -             | Mar 25, 2009 | May 13, 2009 For now we will stay with the existing "diamond brace"   |
|                             | cross bracing is only needed in four locations.  |                                       |               |              | 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 TE 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                     |
|                             |  | 05:                                   |               |              | members for next step analysis  |
| ▼ 5. Umbrella & Outer TF Le | SRI has started on the bolting analysis.   | SRI                                   |               |              | Jun 10, 2009 Need to coordinate with Willard work   |
| J. JIIIDIOIIA & OULGI II LE | The first concept of the NSTX TF Outer Leg support system has no   |                                       |               |              | Apr 29, 2009 Menard can calculate the impact once he gets the   |
|                             | insulating breaks. Do we need to insulate??  |                                       |               |              | resistance of the structure   |
|                             | Need to develop method to seal existing leaks in Outer TF Leg cooling  | Chrzanowski                           | <u>-</u>      |              | May 27, 2009 Requisition is out   |
|                             | passages  • Use horsecone to view the inside of the leak in the TE Outer leg cooling   | Chrzanowoki                           | Oct 1, 2009   | TBD          | Apr 8, 2009 Plan on doing this during an outcos   |
|                             | <ul> <li>Use borescope to view the inside of the leak in the TF Outer leg cooling<br/>passage (during the outage).</li> </ul>  | OHZAHUWSKI                            | OUL 1, 2009   | טם ו         | Apr 8, 2009 Plan on doing this during an outage.  |
| ▼ 6. VV Structure           | passage (daming the butage).   |                                       |               |              |   |
|                             | Enhance the VV midplane strength by welding a band of material   | Heitzenroeder                         | -             | Ongoing      | Mar 25, 2009 Need to look at the strength of the vv with ports (Global  |
|                             | around the inner surface of the midplane, where interferences are  |                                       |               |              | Model) Need to rerun with 360 degree model to refine the  |
|                             | around the little surface of the maplane, where interferences are  |                                       |               |              | analysis.   |