

## Minutes of meeting for discussing the SSW related issues & SSS held on 22-07-2004 .

Present: N Smirnov, M Buzzio, L.Walckiers, V Chohan, Nair, Shyam, Kane, Gomu

1. At the outset, V. Chohan stressed that to solve the issues related to SSS-SSW, there is a need to clarify:

**Definition of work & related procedures.**

**Hardware Diagnostics of SSW related tests**

**Guidelines for Evaluation of Results from SSW as seen by OP.**

It was discussed and agreed that the existing so-called procedure (written by Guy Deferne) can be used as technical reference material after suitable modification. This document contains a lot of useful information but has a very large part dedicated to Survey while for Magnetic measurements, it has not all the details or lacks the details that are needed by OP crew.

For Operation use, a separate well defined document (Operational Method) should be made available at the earliest possible to streamline the SSW tests as well as to help Op crew to carry out the SSW work without difficulties. **A document like that already exists and has been written by Nair & checked by Nikolay. It was mentioned that recently, Nair's document could not be kept updated because he was not told about some important changes which occurred. In future, all modifications and updates to technical issues have to be done in close collaboration by experts with OP persons concerned.**

**ACTION : N. Smirnov ,G.Deferne, K Nair**

2. In addition V chohan has agreed to find some documents containing the scientific principle of SSW test which would supplement the operator thinking.

**ACTION : V.Chohan**

3. As for the Operation way of using the SSW system, it was discussed & agreed that the OP Method should contain a table which would mention for each type of magnet measurement which db file and z position file should be loaded for the experiment. The parameters of the db file need not be manipulated by the operator for standard magnetic measurements.

It was proposed to incorporate a table at the end of the OP Method which would mention the limits of all the results to help the operator whether to repeat the test or not. The values will be given by Mr. Nikaloy Smirnov. At the moment, a lot of time is wasted because often, OP crew are asked to relaunch the tests & this could be done autonomously if "good" & "poor" results examples etc were provided.

**ACTION : N. Smirnov**

4. L. Walkiers proposed that to expedite the work of SSS magnet that activities in to do list should be classified as parallel and series, so that in case of any activity gets stuck up due to any problem, any parallel activity to the activity which got stuck up should be launched to save time. The To Do List should be overhauled to incorporate this concept (or a separate document indicating only the reference numbers in To Do List). **Nair will attempt to make a list of items in one sheet which indicates the parallel options and so forth.**

**ACTION : L.Walckiers, N. Smirnov**

5. The naming terminology of SSS magnet should be studied in order to know the configuration of magnets in the SSS magnet. **The problem arises in definitions of Left Right as well as MO or MQT variations that all SSS have and this information is absolutely important & necessary**

right at the beginning for resistance measurements as well as preparing the OP paper templates and concise work details. It was said that this information must be there in MTF & so a search could be launched in MTF. V Chohan said that this information in the early days of dipoles was provided by MTM Equip. support. **L. Walkiers suggested that M. Gateau could do this and make available the information for operation. V. Chohan will ask her about this as well to Peter Rohmig.**

**ACTION : P.Rohmig, (+ M. Gateau)**

6. Regarding the different wires which are used in SSW measurements, Nikaloy Smirnov said that in a short time Good copper Beryllium wire will be procured from England. **Once this wire arrives, all the benches will be equipped with same wire for all measurements. Presently For benches C2 & D2 old wires shall be used and for D1 the available Good copper Beryllium wire shall be used till it is consumed fully.**
7. **The matter regarding when to sign the traveller has yet to be sorted out as the magnet connection is still done with the help of MTM mechanics. The procedure has to be streamlined and handed over to the ICS. Also the e-traveller need to be modified to suit SSS as well. It was suggested that V Chohan sorts this out with J Halik and J.Axensalva**  
**ACTION : V.Chohan, J. Axensalva**
8. The new user friendly system to make the SSW measurement easier will be made available only in September by Fermi Lab according to L.Walckiers  
**ACTION : L.Walckiers**
9. **For survey, manpower support on contract will be made available round the clock in a week's time. (hopefully) .This is what we have been told to believe after discussions held with Survey person concerned by V.Chohan & L Walckiers. The Survey team has 4 persons from an outside contract (SIMCO) & the suggestion was that they could be on a on-call piquet service with a response time of 2 to 4 hrs .However this has to be agreed by the contract responsible and this has to be negotiated with say an upper limit in period concerned (e.g. up to end this year or Easter next year ).**  
**ACTION : D. Missiaen, J-P Quesnel, L.Walckiers**
10. **The training rule for the SSS should be such that the training should be continued until the magnet reaches ultimate of 9T within a maximum span of 9 ramps. It is observed that SSS magnets have better training performance compared to Dipole magnets. The thermal cycle rule for training has to be yet established as there was no precedence of SSS not getting trained in 9 ramps.**  
**ACTION : L.Walckiers**
11. The matter regarding whether to skip SSW measurements if results are not achievable was discussed and decided that this measurement is a must in cold condition till sufficient data is available to make correlation between warm & cold measurements. However in the case of other tests or cooling down is held up because of SSW warm measurements then, warm SSW can be avoided and one can try to do this after the final warm up. In case of trouble in SSW after final warm up and the magnet is held up for disconnection and removal this test can be avoided. Also if it is not possible to carry out the survey, there is no need to do SSW measurements.
12. For measuring the resistance of the SSS magnets, it is proposed **to procure DC 30 Volts/ 2 Amp current source( power packs) & lay the necessary cables from the power supply location to the CFB where the terminals are located. The "Jackie-boxes" have already been organized by V.Chohan & fabricated. V. Chohan will talk to P.Legrand about this additional need.**  
**ACTION : P.Legrand/MTM**
13. The equipment support team for the SSW system has to be trained for smooth operation.  
**ACTION :L.Walckiers**