

Summary Notes: 14th Meeting of Sub Working Group on the Commissioning of the Machine Protection System.

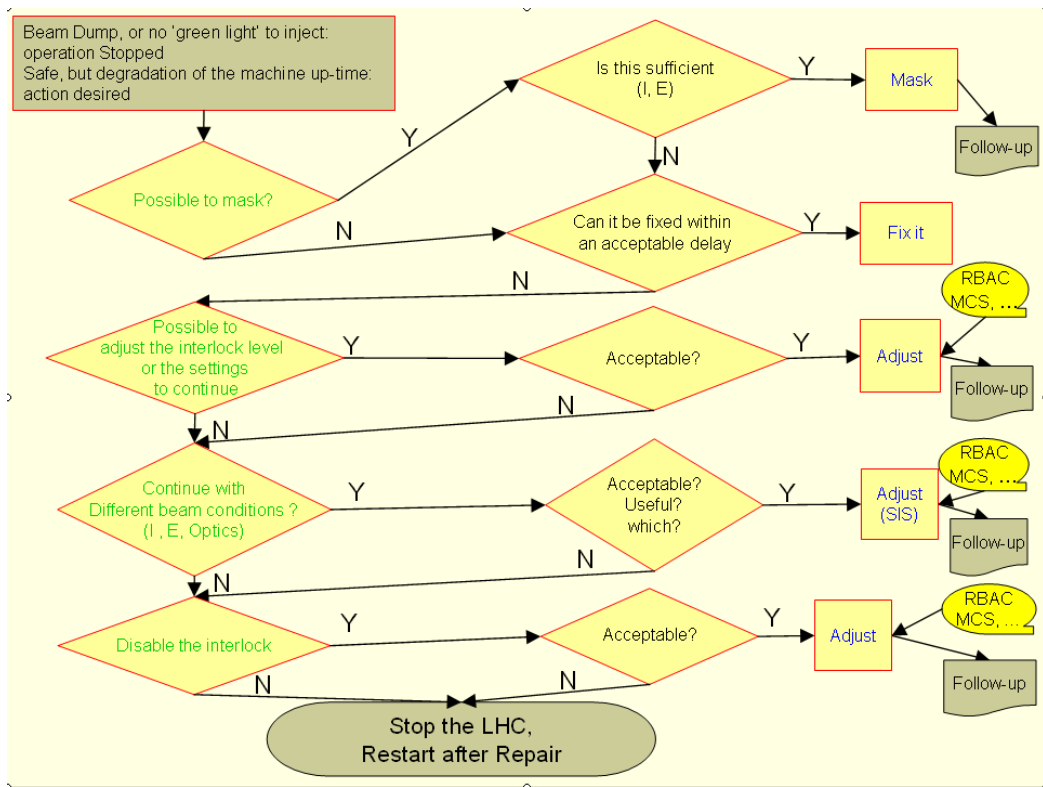
Wednesday 23rd April 2008

Present: Eva Barbara Holzer, Mike Lamont, Alick Macpherson, Rudiger Schmidt, Jan Uythoven, Jorg Wenniger

CC: Gianluigi Arduini, Ralph Assmann, Roger Bailey, Bernd Dehning, Reyes Alemany, Brennan Goddard, Magali Gruwe, Verena Kain, Laurette Ponce, Stefano Redaelli, Mariusz Sapinski, Bruno Puccio, Walter Venturini, Markus Zerlauth

Followup from the ELTC – Jan Uythoven

- Jan led a discussion of issues of MPS commissioning that came out of the eLTC. They are:
 - Under normal operation, we have to workout how to define the operational limits, and implement a monitoring within SIS. This would apply for operational changes in:
 - Energy
 - Intensity
 - Optics (some typical quadrupole currents)
 - Crossing angle
 - The changes should be verified via LSA and then problems flagged by SIS.
 - Note that the sequencer already checks if parameters are within tolerance.
 - **Question:** what does the sequencer do if the parameter is out of tolerance?
 - If a parameter is defined as critical, trimming is disabled.
 - SIS should show the state of the MPS envelope and have a link to the online details.
 - A simple display should show the limits applied.
 - The MPS envelope should be RBAC protected (both SIS monitoring and LSA settings). Once the MPS envelope monitoring is defined, this needs to be confirmed.
 - **Action Items**
 - Bernard Holzer is to be asked to look at the optics in order to define the MPS envelope so that we can implement an algorithm for MPS monitoring. Jorg is also to be involved in this.
 - Jan's decision flow chart from the eLTC presentation (see Fig 1)
 - The actions defined in the flow chart should be incorporated in the MPSC MPS 'operational procedures'.



- **Status of Masking and disabling of Interlocks, changes of interlock limits etc.:** Monitoring should give a list of interlock limits that are out of nominal. This list should not be maintained in the logbook, but instead could be via an active webpage that uses formal tracking
 - Proposal: Use a database based solution similar to the HWC powering of circuits evolution page that was done by Alvaro Marqueta Barbero for the HWC
 - **Action item:** Rudiger to discuss the problem with Alvaro, and then invite him to the next meeting
- The MPS decision taking
 - It was agreed that a MPS panel should be established to evaluate situations related to MP and the MPS envelope. (ie similar to the MPP of HWC)
 - It was noted that the panel will be drawn mostly from the people already concerned with MPS
 - The proposed name of the panel is LPP (LHC Protection Panel)
 - The Panel will need to be formalised

MPSC procedures and MTF – Alick Macpherson

- Approval process for MPSC procedures is ongoing
 - Still need to get an MPSC commissioning procedure for Safe Machine Parameters and their distribution by GMT

- It needs to be clarified if a procedure is needed for the movable devices, but this primarily depends on who is responsible for the control system of the devices. To be followed up
- As part of the preparation for cold checkout/operation, it was suggested that we draw up a document based on the MPSC procedures, that lists all the tests related to optics, energy, intensity, or crossing angle changes. There is to be nothing new in this document that is not covered in the MPSC procedures, but it may help in defining the MPS envelope for commissioning.
 - To be followed up
- MTF: an MTF template has been made for the BIS commissioning, and if needed, this can be extended to the user systems that interact with the BIS or which have an MPSC procedure.
 - Both status and property values can be uploaded
 - Historical records are maintained for the MTF properties associated with the MPSC procedures, so that the evolution of properties over the lifetime of the equipment can be monitored.
 - For questions related to defining/getting/using the MTF template associated with a User System MPSC procedure, please contact Alick.

AOB

- Next MPSC meeting
 - **Date: 16th May 2008**
 - **Time: 10:30 - 12:00**
 - **Room: 864-1-C02**