



Status of documents for DOE contribution

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FUNCTIONAL REQUIREMENT SPECIFICATION: MAGNET

- First internal round completed
 - Prepared by US
 - Iteration with WP3L (Ezio), and PE (Paolo), WP2 (Gianluigi)
 - Group Leader (Luca), Project Leader (Lucio)
- Second round on going with feedback from CERN different actors
 - WPLs, GLs
 - To be completed by the end of June
- Then back to US for final approval

FUNCTIONAL REQUIREMENT SPECIFICATION: MAGNET

- It contains functional requirement specifications and **some** acceptance criteria
- Split in
 - Threshold Requirements (TR): must be achieved
 - Objective Requirements (OR): should be pursued but they could be not reached
 - **The Acceptance document is going to present all criteria for acceptance and thresholds, as it was done for the present IR quads:**
 - **For instance, in the Acceptance Plan for LQXB there were 3 thresholds for field quality**

FUNCTIONAL REQUIREMENT SPECIFICATION: MAGNET

- Threshold requirements (in red recent modifications)
 - Ability to operate at ultimate current
 - Training: reach nominal after thermal cycle with max 3 quenches
 - Ramp rate of ± 30 A/s
 - Radiation resistance of 33 MGy - with exceptions that can be in the approved material list for specific location
 - Voltage to ground during operation 670 V
 - Splice resistance (to be seen if including a threshold at room temperature)
 - Operation with 2000 cycles (the only possible with 2 weeks of test) - before was Objective with 5000
 - Able to survive 20 quenches during operation
 - Able to survive 20 bar MAWP
- Objective requirements
 - Training: reaching nominal after thermal cycle with max one quench
 - Field quality

OTHER DOCUMENTS

- FRS cold mass
 - First draft agreed between Ezio and Sandor
 - Next steps: Herve, Paolo, then SL, GL and PL, and CERN circulation
- FRS cryostat
 - First draft prepared by Sandor
 - Next steps: iteration with Delio, Ezio and Paolo, then SL, GL and PL
- Acceptance plan
 - To come
- Interface document
 - Nothing done yet
 - Will start in July
- Material list
 - Approved by T. Otto
- Cryo-Magnet conceptual design
 - Draft circulated
- Cryostat conceptual design
 - Draft completed (Delio, Ezio, Sandor)
 - Next steps: approval from CERN