

**CDR/ACDR/TDR
Update Needed by 27 August 2004**

Dear Friends, including Nikolai, who I missed in earlier distribution

We are getting pressured by BTeV and the Directorate to get this document updated even earlier! Can I ask you to please get your suggested corrections or updated sections to me by Friday, August 27.

Thanks, and sorry for the added pressure....

Peter

On Mon, 16 Aug 2004, Peter H. Garbincius wrote:

Dear Friends,

It is time to update the C0 IR design report, and Mike Church has asked me to be editor....thanks Mike. Well in any case, [the current document can be found at Beams-doc-1001 \(.doc and .pdf versions\)](#) or at [BTeV-doc-2497 \(.pdf version only\)](#) (please let me know if you need help in getting access to the design report via either of these paths). This version was from April 2004 and does NOT include the changes for John Johnstone's OPUS 2 optics and associated beam physics changes, nor any of the technical changes in the magnet components or other systems for which our understanding has matured since April.

I would like to ask you to critically review this obsolete version and send me a marked up copy, either paper, .doc, or notes in .pdf. If your changes are major, please send me a new paragraph or section in .doc format and I'll incorporate it into the next version. Can I ask for your suggested changes by the end of August (11 work days from now)? Sooner would be better if you can get them to me earlier. If you have no suggested updates, a note saying that would also be helpful so I won't have to come looking for you on September 1.

Thanks,

Peter

Our sections - Update Assignments (My guesses)

3 LHC STYLE QUADRUPOLES

3.1 OVERVIEW AND CONCEPTUAL DESIGN

3.2 MAGNET COILS AND MECHANICAL DESCRIPTION

F. NOBREGA
(NO CHANGES)

3.3 FIELD QUALITY

3.3.1 Iron Yoke Optimization

3.3.2 Magnet transfer function

3.3.3 Field Harmonics

3.X RAMP RATE DEPENDENCE

JCT/S. FEHER

3.4 QUENCH PROTECTION, ELECTRICAL SPECIFICATIONS, AND BUS **S. FEHER**

3.4.1 Inductance, resistance and stored energy

3.4.2 Voltage taps and heaters

3.4.3 Quench Detection and Protection

3.4.4 Bus

3.4.X Current Shunt

3.5 CRYOSTAT REQUIREMENTS **T. NICOL**

3.6 CRYOGENIC SPECIFICATIONS **T. NICOL**

3.7 DESIGN CHANGES, R&D, AND INFRASTRUCTURE NEEDS **T. PETERSON**

4 NEW SPOOLS

4.1 OVERVIEW AND CONCEPTUAL DESIGN **T. PAGE**

4.2 CORRECTOR DESIGN **JCT**

4.2.1 56" (1420mm) spool

4.2.2 72" (1830mm) spool

4.3 DIMENSIONAL SPECIFICATIONS **T. PAGE**

4.4 CRYOGENIC SPECIFICATIONS **T. PAGE/T. PETERSON**

4.5 QUENCH PROTECTION **S. FEHER**

4.6 CONNECTIONS AND INTERFACING **T. PAGE/S. FEHER**

4.7 MEASUREMENTS AND R&D TO DATE **S. FEHER**

4.7.1 HTS Leads