

Hall C Horizontal Bend (HB) Magnet

Quench Calculation Review

Charge

1. Have the correct magnet input data been used for the calculation? For example,
 - a. Operating current
 - b. Dump resistor value
 - c. Dump switch opening time
2. Are the modeling assumptions reasonable? For example,
 - a. Material properties versus temperature (longitudinal and transverse directions within the coil pack)
 - b. Allowance for coupling losses
3. Based on the information provided, are the results consistent with the model and the assumptions made?
4. Are the results, as presented, consistent with what you would expect of a magnet of this design operating within the parameters described?
5. Is there any additional work that should be performed to qualify this magnet for safe operation at 4000 A (as far as magnet hot spot temperatures are concerned)?