Comments on the 3D model received from LBNL on 8/5/2011:

1. **The HTS leads orientation should be checked and verified by the vendors carefully.**

“One of distinct characteristics of HTS materials is anisotropy of their electromagnetic properties. The behavior of the HTS materials such as critical current at a given temperature is affected by not only the magnetic field on it but also the field orientation. The magnetic field perpendicular to the HTS conductor flat face (unfavorable field direction) has greater effects on HTS performance than that parallel to its flat face (favorable field direction), e.g., the critical current of the HTS conductor in the unfavorable field decreases much more than in the same favorable field direction. The anisotropic nature of the HTS materials requires the leads made from them to be positioned in a magnet so that applied fields are along favorable directions. “The details please see the attached paper submitted to MT22 by me.

**From the 3D model I got on 8/5/2011, I found the HTS leads orientation was changed. It will probably affect the HTS leads’ performance greatly.**

1. From the 3D model on 8/5/2011, **the diameter of the coiled Cu tubes to serve as a heat exchanger along the GHe return line is too small, which will probably result in flow block during the processes of magnet cool down or magnet quench.** For my original design, I proposed to applied two coiled piping in parallel as a heat exchanger with OD=12mm and thickness less than 1mm each. At the inlet end of the heat exchanger there is one distributor and at the outlet end there is one collector. Please see the attached PID.