

## Solenoid – Plan Forward / Roles and Responsibilities

**Date: September 14<sup>th</sup>, 2017**

**Time: 14:00 – 14:30**

*Attendees: Pablo Campero, Brian Eng, Ruben Fair, John Hogan, Denny Insley, Dave Kashy, Bob Miller, Nicholas Sandoval, Doug Tilles and Glenn Young*

### 1. Results of Solenoid quench analysis presented by Ruben Fair

- 1.1. On 9/12/17 1<sup>st</sup> quench event at 932 [A] - due to suspected over voltage on coil 3 (VT 8)
  - 1.1.1. After C3 ‘quench’, it recovers (voltage drops back to level consistent with induced voltage due to ramp), but QD was already active and dumped the MPS switch after 108.7 [ms]
- 1.2. On 9/12/17 2<sup>nd</sup> quench event at 1014 [A] – due to suspect over voltage on coil 4 (VT12)
  - 1.2.1. Dump switch opened after 92 [ms]
- 1.3. On 9/13/17 3<sup>th</sup> quench event at 1038 [A]
  - 1.3.1. Initial event – voltage increased on coil 3 (VT8)
  - 1.3.2. 100 [ms] before main event (Fast dump) occurs voltage increased on coil 4 (VT 12)
  - 1.3.3. After 12 [s] main event initiated with a voltage drop on coil 5 (VT10), coil 3 (VT8) again, coil 4 (VT12) and coil 2 (VT 14)

### 2. Discussed roles and responsibilities assigned as follows:

- 2.1. Powering magnet: Nick (Lead), John (second lead)
- 2.2. Data analysis (for quenches and any other events): Renuka (Lead) with support from Brian
- 2.3. Field mapping: John (lead) with support from Renuka, Mike Beck and Joe Meyers. Bob and Cyril are on hand if any adjustments are required to the mapping hardware.
- 2.4. Cryogenics: Dave Kashy with backup from Denny Insley.
- 2.5. Load Cells: Dave and John
- 2.6. Controls / EPICS : Nick, Pablo, Brian, Wesley
- 2.7. Resource issues: Glenn

### 3. Planned forward activities to power up the magnet

- 3.1. 9/14/17 – power up solenoid at 1250 [A].
- 3.2. If the aim is not complete – Power up will continue on 9/15/17.
- 3.3. If magnet is ramp up to 1250 [A] on 9/15, no further ramping will occur over the weekend and field mapping will take place on the weekend at 1250 A.
- 3.4. In case of ramp up to 1250 [A] is not reached on 9/15, we will continue ramping over the weekend and field mapping will take place next week.