Jefferson Lab

THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY
12000 Jefferson Avenue
Newport News, VA 23606

HALL B PROCEDURE NO.:
B000000400-P006 Rev -

TITLE: **Solenoid Low Current Voltage Tap Check Procedure**

BY: Probir Ghoshal

DATE: March 28th 2017

Intended Checker and Approvers:

CHK: Renuka Rajput-Ghoshal
1. APP: Ruben Fair
2. APP:

Since the magnet is cold @ 4.2K, magnt is superconducting, the voltages across the coils are negligible.

Ghoshal
7/14/2020

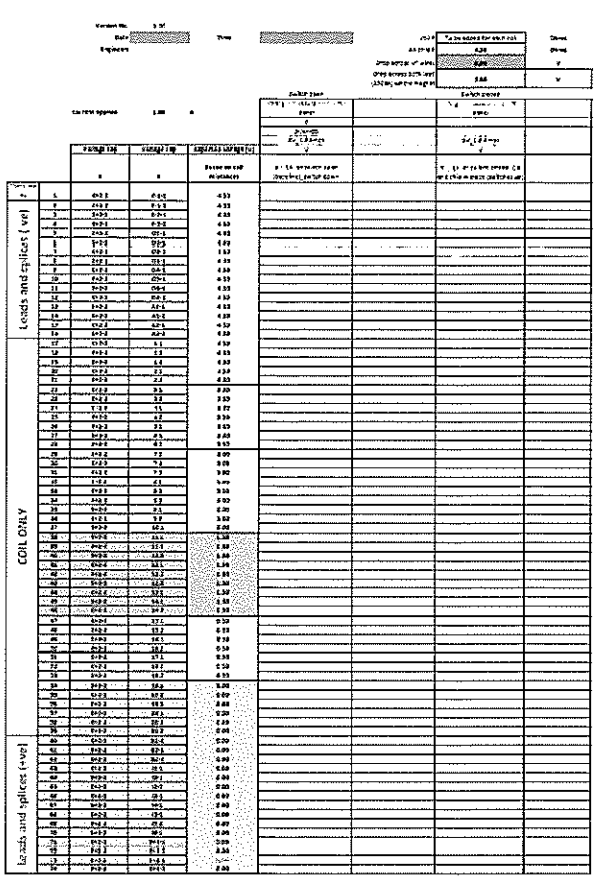
1

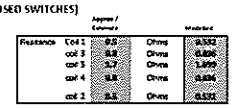
REV.	DESCRIPTION	BY	CHK.	APP.	APP.	DATE

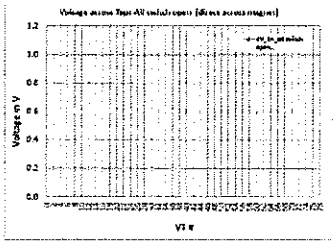
Item Establish whether the Solenoid has a ground fault or via another procedure (*carried out normally leakage current test*)	Checked by:	Date
Measure "Voltage Drops" @ Current Limiting Resistor Boxes	NA	
Point to point check out (continuity) after current limiting resistor to the front panel (with switches OFF) ~100 kOhms		
Attach the negative lead of the Multimeter/Volt Meter to Positive Lead of the Solenoid		
Run current through the Solenoid with "floating" supply at <60 V with installed resistor / diode safety discharge circuit (Positive Voltage to Positive Lead).		
Using the positive lead of the Volt meter ~ Measure the values at connections at terminal strip and "Primary" Voltage Taps (VTE+2-2- VTXX and VTE-1-1) cascade at the pins of terminal FRONT PANEL (See B00000-09-00-0680).		
Record on a new set of dated columns on spread sheet for "Primary" Voltage Tap readings on M drive: shared drive Tab: LowCurr_19Sept2016 (Primary Column) with 1.0 A Saved at the following location- M:\hallb_eng\CLAS12\Magnets\Solenoid\Solenoid test in HALL B\Hall Solenoid Voltage Tap Wiring Checkouts _Low current measurement.xlsx		
Log the results		
Slowly discharge voltage from power supply by decreasing voltage to zero and remove test leads.	NA	

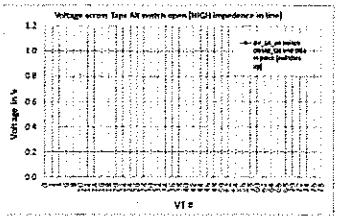
Typical layout of the data to be recorded

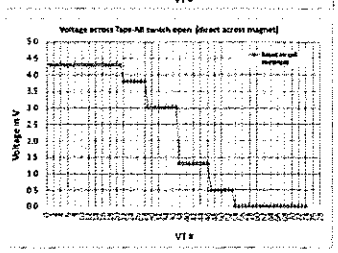
SOLENOID VOLTAGE TAP MEASUREMENT AT LOW CURRENT (WITH OPEN AND CLOSED SWITCHES)











HALL B PROCEDURE NO. B000000400-P006Rev -
Solenoid Low Current Voltage Tap Check Procedure

Approved: 3/29/2017; E-Sign ID : 340298; signed by: Ap. 1: R. Fair; C.: R. Rajput-Ghoshal; D: T. Fuell