

## DSG-NPS R&D Meeting Minutes

**Date:** June 08, 2021

**Time:** 11:00AM – 12:10 PM

*Attendees: Mary Ann Antonioli, Aaron Brown, Pablo Campero, Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran*

### 1. Hardware interlock system development

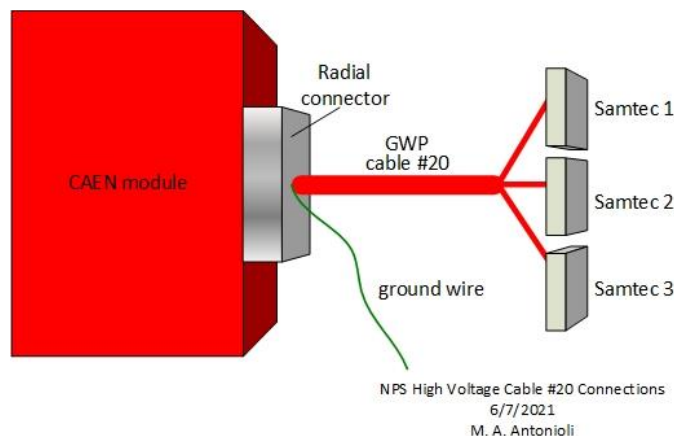
*Mary Ann Antonioli, Peter Bonneau, and Aaron Brown*

1. Reviewed LabVIEW Keysight scanning program development
  - Program generates four arrays of crystal zone temperature values (two for front and two for back sensors)
  - Next step is to configure multiplexer channels for RTD sensors and add scanning of sensors to program
2. An Excel table will be developed to detail the number of multiplexers installed in the Keysight 34980A mainframe and the use for each multiplexer
3. Reviewed *Plots* sub-tab of *Crystal Zone* tab in LabVIEW hardware interlock system program
  - Sensor plots can be enabled or disabled during runtime
4. Random numbers generated for testing programs will be limited between 16 and 20 to simulate crystal zone operating temperatures

### 2. HV supply cable fabrication/testing

*Peter Bonneau, Aaron Brown, Brian Eng, George Jacobs, Mindy Leffel, and Marc McMullen*

1. Long-term cable testing with load in progress; plots uploaded to [DSG NPS Technical Documentation](#) webpage
2. Reviewed drawing of HV supply cable #20 that shows cable shield wire (ground wire); revisions will be made



Visio drawing for HV supply cable #20 showing connection to CAEN module and ground wire

3. Noticed issues while testing cables #19, #24, and #25 on module #326
  - During testing, an EXT-DIS (External Disconnect) error occurred, which usually happens when the CAEN module safety loop is not completed
  - The crimps inside the Radial and SAMTEC connectors for these cables will be checked and cables will be retested