

## DSG-NPS Status Meeting Minutes

**Date:** January 20, 2021

**Time:** 3:30 PM – 4:00 PM

*Attendees:* Aaron Brown, George Jacobs, Tyler Lemon, Marc McMullen, Carlos Munoz, and Brad Sawatzky

### 1. CSS screen development status

- 1.1. Mary Ann Antonioli completed 874 of 1080 PMT Settings blocks on the main CSS NPS screen
- 1.2. Python script to generate Hall C NPS voltage and current readback CSS-BOY screen is complete

### 2. NPS Hardware Interlock System development

- 2.1. Developing fault condition flowcharts to detail how the NPS Hardware Interlock System will react to different fault conditions
  - 2.1.1. Will post to DSG NPS Technical Documentation website
- 2.2. Submitted PR for humidity sensors; signed by Stephen Wood (buyer: Albert DeChristopher)
- 2.3. Received cooling system step files from Carlos Munoz to develop three-dimensional detector model in NX-12
- 2.4. Carlos Munoz confirmed that insulating foam surrounding cooling plates of the crystal array is removable
  - 2.4.1. Can move ahead with plans to place temperature sensors on cooling plates beneath insulating foam
- 2.5. Aaron Brown contacted Jack Segal regarding plans to flow dry air in detector frame; awaiting response
- 2.6. Carlos Munoz confirmed that the heat exchanger fans do not have ability to read fan speed; no need to procure fans with this ability

### 3. Cable fabrication/Procurement

- 3.1. Carlos Munoz confirmed SAMTEC connectors' pinout
- 3.2. Marc McMullen generated, for the multi-conductor HV cable, a spreadsheet detailing conductor connections between Radiall 52-pin connector and SAMTEC 30-pin and 16-pin connectors
- 3.3. Aaron Brown will contact Chris Cuevas and Fernando Barbosa regarding voltage ratings of SAMTEC connectors for multi-conductor HV cables
- 3.4. Return authorized for twelve defective CAEN Radiall 52-pin connectors; Mindy Leffel will leave connectors with shipping/receiving on 01/21/2021
  - 3.4.1. Lead time for replacement connectors is ~1 month

### 4. Testing analysis

- 4.1. Mary Ann Antonioli completed ramp test plots for 13 of 33 modules that were tested; 468 channels total
- 4.2. Aaron Brown compiled a spreadsheet detailing which modules have issues that need to be addressed by CAEN technical support
  - 4.2.1. A column indicating firmware revision number for each module will be added to the spreadsheet
- 4.3. All analysis summaries and graphs are being uploaded to the [DSG NPS Technical Documentation](#) website