DSG-NPS R&D Meeting Minutes

Date: January 25, 2022 Time: 02:00PM – 02:55PM

<u>Attendees</u>: Mary Ann Antonioli, Aaron Brown, Pablo Campero, Brian Eng, Mindy Leffel, and Amrit Yegneswaran

1. <u>Hardware Monitoring Program Development</u>

Mary Ann Antonioli, Peter Bonneau, and Aaron Brown

- 1. Discussed changing methods of alerting users to fault conditions for Overview Phoebus screen
 - Flashing LEDs are not supported by Phoebus
 - Will investigate using different colors and shapes for different states/conditions (e.g., a green circle for ON, a red square for OFF, and a yellow triangle for FAULT)
- 2. Reviewed Chiller tabs for hardware monitoring LabVIEW program
 - "outlet" will be changed to "supply"

Crystal Zone	Electronics Zone	Detector Frame and Hall	Chillers	
Crystal Zone Electronics Zone Expert Settings				
chiller model number RC006G03BG3 outlet temperature [*C] 5.0 outlet pressure [psi] 9.0 outlet flow [l/min] 24.0				
		iller Temperature [°C]	Crystal Zone Chiller Pressure [psi]	Crystal Zone Chiller Flow [l/m]
	0.8-		0.8-	0.8-

Screenshot of crystal zone chiller tab from hardware monitoring LabVIEW program

2. Hardware Interlock System Development

Mary Ann Antonioli, Peter Bonneau, and Aaron Brown

- 1. Reviewed spreadsheet detailing LabVIEW subVIs to be developed for hardware interlock system
- 2. Installing additional thermocouples in Keysight terminal blocks (32 of 112 installed)
- 3. Reviewed Python code being developed to read out temperature and voltage signals from Keysight mainframe

3. Ansys Thermal Analysis

Mary Ann Antonioli, Aaron Brown, and Brian Eng

- 1. Reviewed Python code developed to parse analysis results
 - Code prints only the temperature probe values to screen without header information

4. ESR Pre-shaping

Aaron Brown, George Jacobs, and Mindy Leffel

1. Pre-shaping complete

5. High Voltage Supply Cable Testing

Aaron Brown, George Jacobs, Mindy Leffel, and Marc McMullen

- 1. Completed testing of 140' cable
- 2. Three channels (#10, #25, and #28) had over-voltage issues; channels need to be retested