DSG-NPS R&D Meeting Minutes

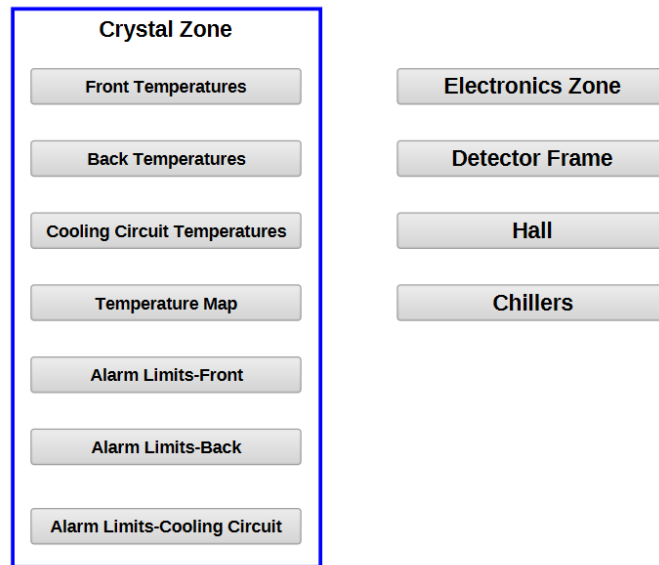**Date: March 01, 2022**
Time: 02:00PM – 03:30PM

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

1. **Hardware Monitoring Program Development**
   Mary Ann Antonioli, Peter Bonneau, Aaron Brown, and Brian Eng
   1. Reviewed EPICS Phoebus screen for hardware monitoring program
      - Main screen has action buttons that open display windows for crystal zone, electronics zone, detector frame, hall, and chillers

Screenshot of CSS Phoebus screen for EPICS hardware monitoring program

   2. Reviewed spreadsheet generated for PV names
      - Includes PV name, Keysight channel number, crystal number, and sensor type and location

2. **Hardware Interlock System Development**
   Mary Ann Antonioli, Peter Bonneau, and Aaron Brown
   1. Reviewed LabVIEW program/EPICS screen development spreadsheet
      - Hardware monitoring LabVIEW program screens will be added to spreadsheet

3. **Thermal Analysis**
   Aaron Brown, Pablo Campero, and Brian Eng
   1. Reviewed specifications for heat exchangers (Lytron model number 6320G3) and for chillers (Kodiak model numbers RC006G03BG3 and RC011G03BG3)
   2. New Ansys thermal simulations will be conducted using heat loads of 0 W, 0.3 W, and 0.6 W for the rear face of each crystal
      - The ambient temperature will be kept at 22°C and the Cu shell will be kept at 18°C