# DSG-RICH R&D Meeting

**Date: August 10, 2021**
**Time: 1:30 PM – 2:30 PM**

*Attendees: Mary Ann Antonioli, Peter Bonneau, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran*

1. **NX12 design of hardware interlock chassis in progress**
   1. Using models for PCBs, sbRIO, cRIO module expansion, and feedthroughs to check fit of all chassis components
   2. Minimum chassis dimensions required
      - Height: 3U (5.25")
      - Depth: 15"
      - Width: 19" (standard width of rack-mount chassis)
   3. Design cannot be completed until gas system is finalized by Hall B
      - Number and type of feedthroughs for sensors to chassis is unknown
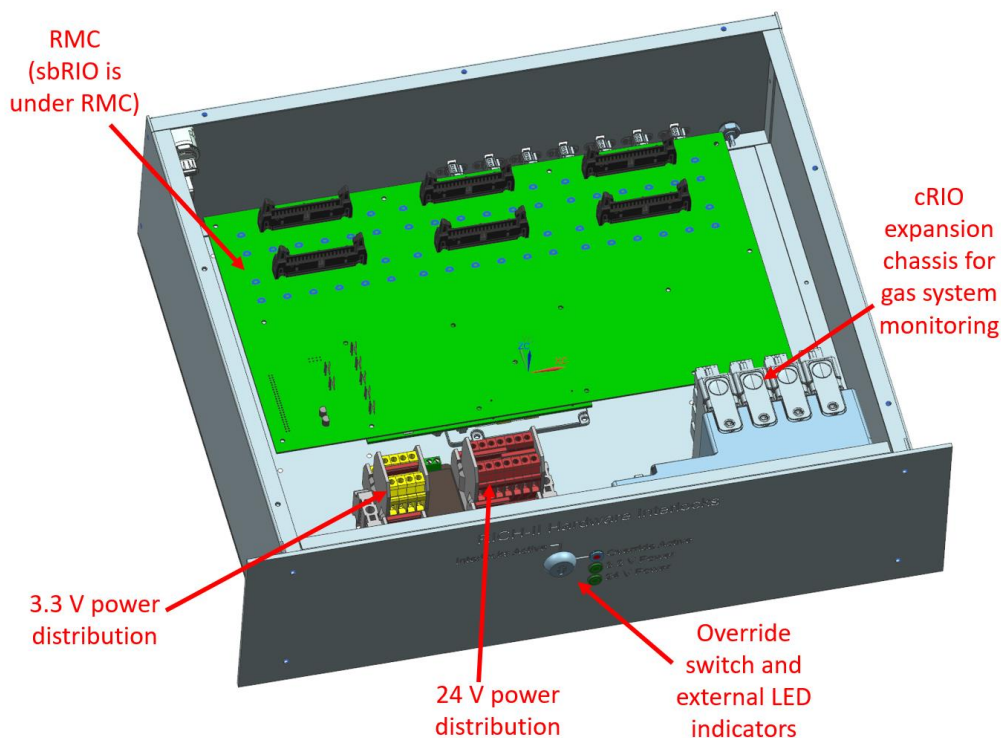


2. **Discussed behavior of interlocks (table below)**
   1. During the Hall B RICH meeting on 8/4/21, interlock behaviors were discussed and verified
      - Interlocks will trigger one of three behaviors
        – Interlock CAEN by toggling a physical relay in interlock system
        – Send an alarm using Hall B's EPICS alarm handler
        – Nothing
          ▪ Status will be indicated only as a reference
          ▪ Alarms can be added if later desired

| Interlock | Level | Action Taken |
|---|---|---|
| Electronic Panel Temperature | High | Interlock CAEN via relay toggle |
| | Low | None |
| Electronic Panel Humidity | High | Send alarm via EPICS alarm handler |
| | Low | None |
| Nitrogen Volume Temperature | High | Interlock CAEN via relay toggle |
| | Low | None |
| Nitrogen Volume Humidity | High | Send alarm via EPICS alarm handler |
| | Low | None |
| Cooling System Air Flow | High | None |
| | Low | Interlock CAEN via relay toggle |
| Cooling System Air Pressure | High | None |
| | Low | Interlock CAEN via relay toggle |
| Nitrogen System Flow | High | None |
| | Low | Send alarm via EPICS alarm handler |

3. **SHT35 sensor PCBs' production order to be placed within the next week**
   *Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, and Marc McMullen*

4. **RMC review meeting will be 8/12/21**
   *Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, and Marc McMullen*

5. **Backplane PCB schematic development is in progress**
   *Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, and Marc McMullen*