**RTPC Gas Controls**

**Date: 02/07/2019**

**Time 13:30 – 15:00**

*Attendees: Marc McMullen, George Jacobs, Brian Eng, Narbe Kalantarians, Sebastian Kuhn, Carlos Ayerbe Gayoso*

**Agenda:**

1. BONus12 Review Recommendations (DSG/BONuS12 Management)
   1. Charge 1 Clarification
      1. The BONuS6 detector gas supply system will not be used. DSG has designed the RTPC Gas panel, it is being assembled at W&M.
      2. Plans for DSG to develop a gas supply for the target have not been discussed.
   2. Charge 2 Clarification
      1. Outstanding equipment needed for the Gas Controls.
         1. Additional Universal Analog Input
         2. Cables/Connectors
2. Installation timeline. This information is required so that DSG will have adequate time to develop and test the code, and fabricate/install any necessary hardware/cabling. (BONuS12 Management)
   1. Details.
   2. Pressure Systems progress.
   3. Safety Documentation
3. Controls Development. (DSG)
   1. RTPC Gas Signals. The Gas controls will monitor the following signals.
      1. RTPC Flow and Pressure (abs)
      2. DMS – RTPC (diff)
      3. Buffer Pressure (abs)
      4. Temperature (x2)
   2. Flow Control:
      1. The Gas controls will control the flow of the premix using a GE50A.
      2. Controls will be interfaced via the HallB Gas Controls GUI in the gas shed.
      3. Mass Flow Controller (flow range < 200 sccm (N2 equiv.))
   3. Alarms:
      1. The gas controls will provide process variables to the EPICS alarm handler.
   4. Additional parameters?
      1. Interlocks?
      2. What are the issues associated with gas loss?
   5. Hardware: RTPC has purchased one cRIO universal input, however they have 5 signals (3 pressures, 2 temperatures).
      1. Where are the temperature sensors located?
      2. An additional universal input should be purchased.
4. Target Gas supply (BONuS12 Management)
   1. Details