

## Hall A Gas Distribution Meeting

**Date: July 28, 2020**

**Time: 10:30 – 11:30**

*Attendees: P. Bonneau, A. Brown, E. Cisbani, B. Eng, K. Gnanvo, G. Jacobs, T. Lemon, N. Liyanage, M. McMullen, J. Segal*

### 1. Gas Distribution Panel (T. Lemon, G. Jacobs)

- 1.1. T. Lemon gave details on the model of gas panel components currently under design.
  - 1.1.1. T. Lemon showed front and back view of BigBite gas panel.
  - 1.1.2. N. Liyanage suggested that the panel design may be able to be adapted to other detector gas systems (SoLID).
- 1.2. G. Jacobs went over changes to distribution system concerning expansion of the system
  - 1.2.1. Implementation of flow sensors on exhaust.
    - 1.2.1.1. N. Liyanage stated that the exhaust flow measurement should not induce impedance to the system or allow gas to leak back into the detector.
    - 1.2.1.2. J. Segal suggested that an individual sensor be mounted at the exhaust port with a short gas line to prevent back pressure due to line length.
    - 1.2.1.3. N. Liyanage suggested that Hall A investigate impedance due to gas line length. He prefers the sensor to be located in the gas panel (10 meters away).
    - 1.2.1.4. J. Segal will get some models of the detector so the exhaust port locations can be identified.

### 2. Flow Readback (M. McMullen, B. Eng)

- 2.1. M. McMullen provided an update on the status of the readout PCBs.
  - 2.1.1. Gas flow sensor boards and components for the system expansion have been ordered.
    - 2.1.1.1. The GFS\_v1 boards were received on 7/15.
    - 2.1.1.2. RJ-11 connectors were delivered to the lab.
- 2.2. B. Eng provided information on preliminary testing of GFS\_V1 boards and readout software development.
  - 2.2.1. B. Eng has ordered some level shifters for the Raspberry Pi units to operate using 5 V signals from the flow sensors.
  - 2.2.2. M. McMullen will order cable and connectors for RJ-11.

### 3. GEM detector progress for SBS/BB (K. Gnanvo, N. Liyanage, E. Cisbani)

- 3.1.1. N. Liyanage is leaving the group to pursue other physics business at the lab.
- 3.1.2. K. Gnanvo is now the group physics representative along with E. Cisbani.

### 4. Open discussion items. (All)

- 4.1. J. Segal has acquired a rack to be used for the distribution system. He has another on order. The rack will be relocated to EEL 125.