

Hall A GEM Gas Distribution Meeting Minutes

Date: November 20, 2020

Time: 09:30 – 10:30

Attendees: Peter Bonneau, Aaron Brown, Evaristo Cisbani, Brian Eng, Kondo Gnanvo, George Jacobs, Tyler Lemon, and Marc McMullen

1. Marc McMullen gave an update on procurements

1.1. The final drawings for the Gas Flow Sensor chassis is under review by DSG (Fig. 1); after approval, Marc McMullen will order machining through Par-Metals

1.1.1. Final design of the Gas Flow Sensor chassis has a 1" x 1.5" cable management channel; Marc McMullen will submit a purchase requisition for the part

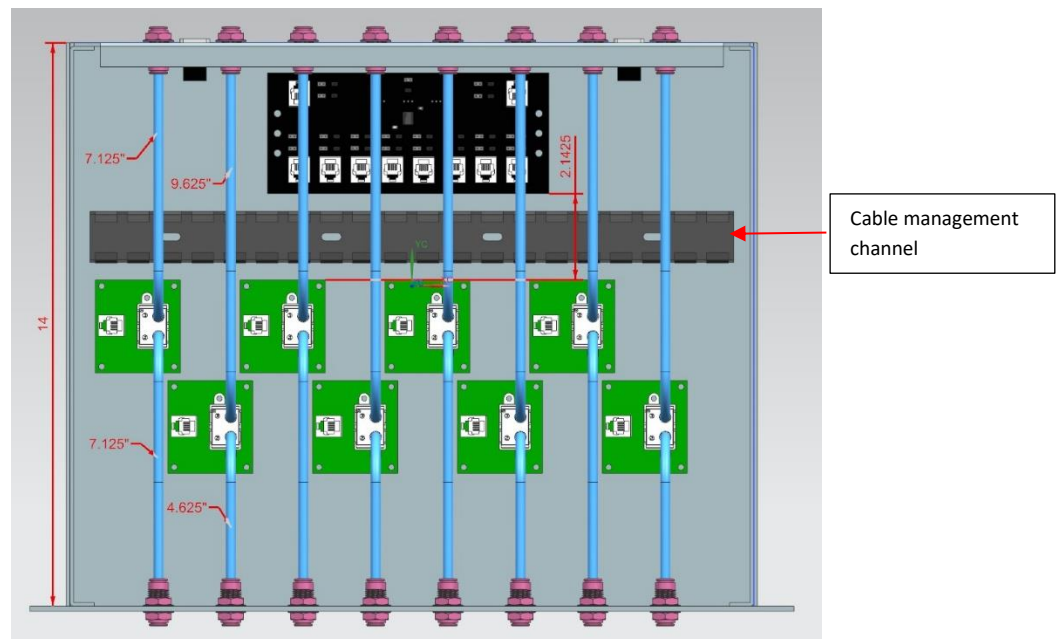


Figure 1. Gas Flow Sensor chassis final design with cable management channel

1.2. Enclosures for the exhaust Gas Flow Sensor and Multiplexer boards are still in fabrication

2. Marc McMullen gave an update on progress of the Gas Flow Readback software

2.1. Prototype software has been developed in Python for the Raspberry Pi

2.2. The software updates flow values to EPICS process variables that are used to monitor flow and check status of the Gas Flow Sensors

2.3. Marc McMullen developed a local CSS display that will be available during testing in TEDF (Fig. 2)

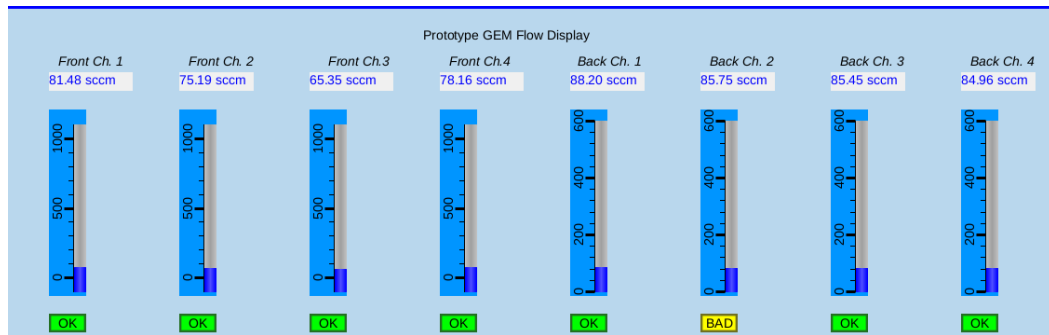


Figure 2. Local GEM gas flow readback with channel status indicators

2.4. Brian Eng is working on integrating pressure transducers in the software; pressure sensor readback will be added to the system after the prototype is installed in TEDF

3. George Jacobs completed assembly of the prototype regulator (Fig. 3) and flow meter valve panels (Fig. 4)

3.1. Panels are located in EEL room 125 near the racks provided by Jack Segal

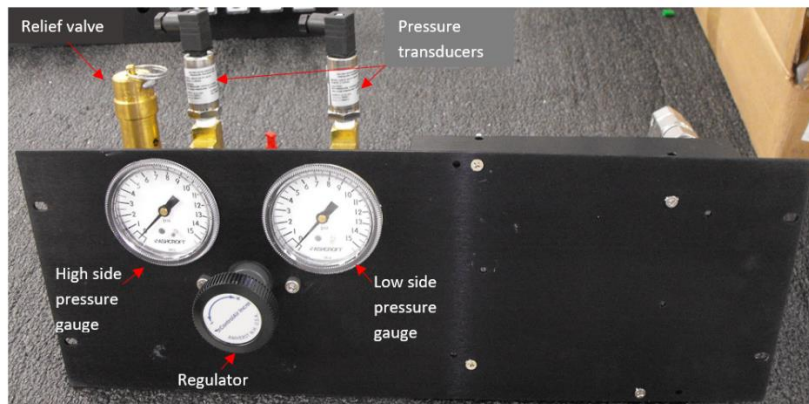


Figure 3. Prototype GEM regulator panel

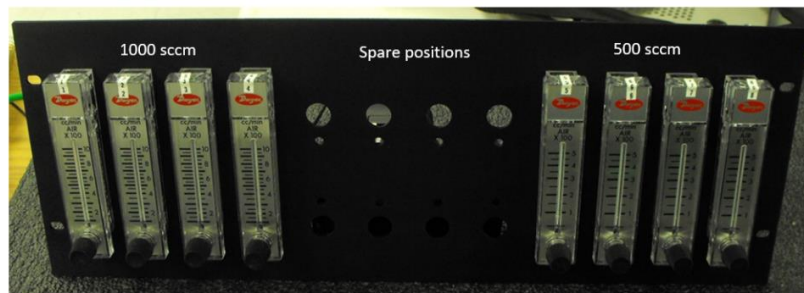


Figure 4. Prototype GEM flow meter valve panel

- 3.2. Marc McMullen informed Kondo Gnanvo that the pressure regulator panel has not been leak tested and that Kondo should ask Jack Segal its status
4. DSG is on track to deliver all components of the prototype GEM Gas Distribution and Flow Readback system during the week of December 7 – 11
 - 4.1. Kondo Gnanvo informed DSG that prototype testing will be done in TEDF using one UVA GEM layer, which will require only the four standard flow gas lines (500 sccm maximum flow); the UVA GEM layer will be delivered to TEDF on December 9
 - 4.2. Brian Eng contacted Brad Sawatzky for network information on the DAq system used in EEL; information will be used to ascertain what needed infrastructure is already in place in the TEDF GEM test area
 - 4.3. Marc McMullen will work on operating instructions for the gas flow readback software
 - 4.4. George Jacobs will prepare assembly instructions for gas panels and Gas Flow Sensor chassis
 - 4.5. Kondo Gnanvo requested a gas supply setup (premix bottle with approved regulator/relief valve) be provided in TEDF; Marc McMullen informed Kondo Gnanvo to contact Jack Segal (pressure system owner).