

## DSG-GEM R&D Meeting Minutes

**Date: January 04, 2021**

**Time: 11:00 – 12:00**

*Attendees: Peter Bonneau, Aaron Brown, Brian Eng, George Jacobs, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran*

1. DSG reviewed issues with the prototype GEM gas panel installed in TEDF
  - 1.1. The GEM group tested the prototype system before the holiday shutdown and determined that there were leaks
  - 1.2. The rate of leaks was not quantified
  - 1.3. The GEM group reconfigured the gas connection using the prototype flow meter panel and a manifold they assembled and set the gas flow to 75 sccm
2. Marc McMullen set up a meeting for 1/5/21 to review the issues:
  - 2.1. The prototype regulator and flow meter panels were delivered on 10/30/2020 to the GEM group and DSG recommended a leak check; were results of the leak test documented?
  - 2.2. 1000 sccm and 500 sccm flow meters for the GEM packages is based on flow demand of the operational system
  - 2.3. Typical flow (225 sccm) is the middle of the flow range for the standard flow meter valves
  - 2.4. What is the purge flow (75 sccm) of N<sub>2</sub> gas based on
  - 2.5. What was the leak rate of the panel using nylon vs. polyethylene and leak locations
  - 2.6. Remote monitoring of the flow was set up to use remote desktop protocol
  - 2.7. DSG is developing a WEDM interface to allow remote monitoring by multiple staff while running the CSS screen locally
3. George Jacobs will evaluate the current set up of the prototype gas panel on 1/4/21 and report his findings
4. Marc McMullen, Brian Eng, and Tyler Lemon will develop a WEDM screen and link to improve remote monitoring of the prototype gas flow readout system
5. Marc McMullen will evaluate the two sample exhaust gas flow sensor and multiplexer enclosures fabricated by Cardinal Machine and then notify Cardinal Machine on steps to complete the job