**GGB Glovebox Regeneration SOP**

**Last Updated: 7/22/2019 by Changyeong**

**PPE Needed**

* Gloves (Nitrile)
* Safety Goggles
* Lab Coat
* Long Pants & Close-toed Shoes

**Procedure**

1. Place an empty bucket or bottle at the back of the glovebox, and connect red & brown hoses to it to collect liquid coming out during the regeneration.
2. Bypass the Carbon Trap, first by opening the bypass valve (#3), then closing the trap inlet (#1, right side on back side of glovebox) and outlet (#2, left side) in that order.
3. Check if there is enough regeneration gas (green cylinder in back corner of 1322 EECS). If there is more than 700 psi, that will be enough for one regeneration cycle.
4. Go to [Functions] on the Touch Screen, and turn off [Circulation Purifier].
5. Push [Regeneration Purifier]. The glovebox cannot be used for 20 hours after beginning, so confirm that this is OK, then push [OK] on the Touch Screen.
6. Open the regeneration gas valve (blue circular valve). Use the bottom left knob to control the flow rate.
7. The flow rate gauge is on the bottom right-hand side of the MB 20G box in between the glove boxes. Adjust the gas valves so that the metal bead in the flow gauge is placed at around 10 – 15 on the 🡪|🡨 marking on the gauge.
8. Push the red button on the touch screen to start automatic process.
9. After the purification cycle is complete (~16 hours later), press [Quick Purge], and let the purge run for about 30 min – 1 hour.
10. Turn on the circulation in the glovebox.
11. Open the carbon filter, then close the bypass valve.
12. If there is less than 700 psi of regeneration gas left after the process, send an e-mail to LNF Staff requesting a new canister of gas.
13. Make sure that there is water in the bucket behind the filter. If there is, then the regeneration process ran successfully.
14. Make sure that the Oxygen level in the glovebox is OK. Make a note on the wall to the right of the glovebox on the regeneration parameters.