

## SOP-E032

### Operation of FYRITE CO<sub>2</sub> Analyzer

**Objective:** To describe the proper use of the FYRITE CO<sub>2</sub> analyzer to check the calibration of the CO<sub>2</sub> incubator.

**Handling Precaution:** The red FYRITE indicator fluid contains the poison potassium hydroxide. In the event of a spill or accidental body contact see page 5 in the FYRITE instruction manual.

**Procedure:**

**Vent the FYRITE:**

1. Hold the FYRITE upright and away from the face. Depress the plunger valve to vent FYRITE and release.
2. Invert FYRITE. Hold at a slight angle to drain the fluid into the top reservoir.
3. Turn upright and hold at a 45° angle momentarily to allow fluid to drain into the bottom reservoir.
4. Hold FYRITE in upright position and away from face. Depress plunger valve momentarily, and release.

**Zero the FYRITE:**

5. Holding FYRITE upright on a level surface, loosen the locknut at the rear of the scale. Slide the scale up or down until the top of the fluid column lines up with the zero on the scale. Tighten the locknut.

NOTE: When setting the scale to zero, hold the FYRITE vertically and at eye level.

**Pump gas sample into FYRITE:**

6. Attach the tubing end of the sampling tube onto the short piece of tubing sticking out from the gas sampling port on the front of the incubator, the upper right side of the panel.
7. Hold the FYRITE in an upright position on the lab bench and place the sampling assembly rubber connector tip over the plunger valve.
8. Depress the plunger valve firmly with the connector tip. Pump the gas sample into the FYRITE by squeezing and releasing the aspirator bulb 18 times. During the 18<sup>th</sup> bulb squeeze, (holding the bulb in the deflated position), release the connector tip from the plunger valve.

**Absorb the gas sample into the FYRITE liquid:**

9. Invert the FYRITE until the fluid drains into the top reservoir, then turn upright to drain fluid into the bottom reservoir. Repeat this step one time.
10. Hold the FYRITE at a 45° angle momentarily to allow the fluid to drain into the bottom reservoir completely.
11. Put the FYRITE down on level surface (lab bench) and let stabilize a few seconds, then immediately read % carbon dioxide on the scale at the point corresponding to the top of the fluid column.

