Title: OPERATION OF THE CENTRAL OXYGEN SYSTEM

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1.0 OBJECTIVE: To describe methods for operation of the Central Oxygen System. This will include system operation and cylinder replacement.

2.0 PERSONNEL/TRAINING/RESPONSIBILITIES

Personnel who have not been trained in these procedures must schedule training with a Laboratory Animal Care Supervisor.

3.0 PROCEDURES FOR OPERATION

3.1 The central oxygen cylinders that are in use are housed in room 102 in the hallway across from the main office. This closet contains 4 cylinders, two in use and two spares. Extra spare cylinders are stored in chained racks on the loading dock.

3.2 Slowly turn valves counter-clockwise on top of each cylinder attached to the system. Check regulators for amount of gas in each cylinder. These regulators are attached directly to the cylinders and the gauge that reads up to 4000psi is the one that indicates how much gas is in the cylinder. The line regulator (at the top of the system) should read 50psi.

3.3 Adjust “Primary Supply” and “Secondary Supply” valves so that the least full cylinder reads “Primary Supply”.

3.4 With both cylinders turned on the system is ready for use.

3.5 If both cylinders are empty a “Low Pressure” alarm will sound. Cylinders should be checked and replaced at the end of each use to ensure this occurrence does not happen. Emergency e-tanks should be in use on the anesthesia machines in case of system failure.

3.6 At the end of each use, check the cylinders pressure and replace any cylinder that is below 500psi per instructions in section 4.0.

3.7 Turn off the system after use by closing valves (turning clockwise) on top of both cylinders. After several hours the pressure in the lines will bleed down and a “Low Pressure” alarm will sound. Pressing the “Silence Audio” button on the wall outside the cylinder closet room 102 can deactivate the alarm.

4.0 PROCEDURES TO CHANGE CYLINDERS

4.1 If either cylinder is below 500psi it should be replaced with a full cylinder (full cylinders will have about 2500psi). Full cylinders are stored either in the closet (room 102) or on the loading dock. A wrench is stored in the closet for regulator removal. With the cylinder turned off, unscrew the copper line from the cylinder. Place a cylinder cap on the cylinder. Remove the security chain around the cylinder. Using a cylinder hand-truck (with a security strap in place) move the cylinder to the loading dock and take a full cylinder to the closet, securing each cylinder in place with the supplied chains. Wrap the threads on the cylinder with Teflon tape and replace the copper line.

4.2 Check the line connection for leaks by turning on the valve and spraying the connection with soapy water (spray bottle with soapy water is in the closet) and watch for bubbles. If bubbles are noted, turn off the valve, retighten connection, turn on valve and recheck with more soapy water.

4.3 Label the empty cylinder with “EMPTY” and secure the label with tape.