STANDARD OPERATING PROCEDURES

DIVISION OF COMPARATIVE MEDICINE
UNIVERSITY OF SOUTH FLORIDA

SOP#: 1016.4

11. Turn off equipment that may operate above or below ambient room temperature (e.g., autoclaves, incubators, refrigerators, and cold rooms) and allow them to return to ambient room temperature prior to cycle initiation to ensure VHP distribution.

12. **Bio-Q VHP-CI (Chemical Indicator)** process to assess the distribution of VHP within the room. The CI will change color and fades from blue towards white when exposed to the parameters (i.e., time, concentration and micro-condensation) of the VHP surface decontamination process.
    a. Avoid skin and or liquid contact with the indicator portion of the CI when handling/placing.
    b.

15. The Bioquell R-30 unit is used to aid in the distribution of VHP and for aeration of the room to remove VHP after decontamination.
    a. When using the unit for aeration only, place unit so that air can flow, unimpeded into all six filters. Blocking filters will prolong the aeration process.
    b. When using the unit to aid in VHP distribution, the front of the unit is positioned so that the fans are directed toward side rooms, alcoves or areas not in the line of sight of the VHP generator.

16. Changing stations, Class A2A laminar flow hoods, and [illegible] of the equipment. However, if equipment contains internal filtration, aeration may need to be extended to counteract absorption into the filters.

17. To decontaminate hard ducted BSCs during room decontamination:
    a. If sash can be left open without creating excessive draw, leave power "ON".
    b. Shut "OFF" power at the breaker.
    c. Turn unit on at breaker when room is fully saturated for a minute or two to draw VHP into the unit.
    d. Turn unit "OFF" at breaker after a couple minutes.
    e. At the end of the VHP cycle the BSC can be turned on again at the breaker to aid in aeration of the room.

18. Check the area again for people, ensure all doors are shut and secured, that all possible openings where significant amounts of gas could escape are sealed, and the ventilation is off or the ductwork/thimbles are sealed.

19. Check that the hand-held low level H_2O_2 sensor (stored in the lectern) is fully charged.

20. Place the flat cable that connects the lectern to the VHP generator under the door carefully, so as not to damage the cable, as you shut the door and leave the room.

21. Seal outer door edges with tape. Bioquell sells tape however most any tape will work (e.g., paper, masking, or duct tape). Use the hand held H_2O_2 sensor during first 10 minutes of the VHP gassing cycle to test seals at bottom of door to ensure it is properly sealed.

22. Follow the procedures described in **SOP #1162** Bioquell Z-2 Hydrogen Peroxide Vapor Generator System to start VHP decontamination and aeration.

23. When aeration begins hard ducted biosafety cabinet can be started at the breaker to speed-up the process.

24. After the appropriate aeration time, the screen will display "[illegible]" Use the hand- held low HP sensor to check the area's actual HP concentration.

25. Place the handheld sensor inside the door for a few minutes, then retrieve the sensor.

26. If the displayed level is <1ppm it is safe to end the cycle and enter the room.

8. While still holding the cap between the third and fourth finger, replace cap on tube.
9. Dispose if tyvek pouch.
10. Tighten TSB tube cap.

e. After all exposed BI have been transferred, **[illegible]** by transferring a BI tab from a pouch that has not been exposed to VHP following the "pinch & peel" technique described above.
f. The **[illegible]** is an unopened tube that contains only TSB.
g. Incubate all the tubes containing BIs including the negative control at 60^0C $\pm$ 2^0C.
h. **[illegible]**

3. Contaminated media tubes, caps, or BI tabs (i.e., touched by outside of pouch or dropped during transfer) should be noted in the "Comments" section of the **[illegible] VHP [illegible]** Caps that are dropped can be replaced with a cap from a spare/extra tube.

4. **[illegible]** :
   a. BIs should be examined after overnight (>18 hours) incubation to give an initial indication, and after 7 days to confirm the final results.
   b. Turbidity indicates spore growth. Turbid media in test vials indicates VHP was not effective in achieving complete bio-decontamination.
   c. Positive controls should be turbid. Lack of turbidity indicates a problem with the BIs.
   d. Negative controls should be clear. Turbid liquid indicates a problem with the sterility of the media.

5. **[illegible] CMDC # 217** Bioquell VHP Decontamination Record.

6. Z-2 printed report tapes and the Bioquell VHP Decontamination Record are maintained with the facility sanitation records