1. Use only exact replacement parts in the configuration as specified by \_\_\_\_\_\_\_\_\_\_.

1. MSHA/NIOSH
2. the manufacturer\*
3. the user’s manual
4. Part 49

2. The battery is to be changed \_\_\_\_\_\_\_\_\_\_.

1. after each use
2. during daylight hours only
3. in fresh air only\*
4. on the surface only

3. MSHA approved for use with one of the following 9-Volt batteries only: Eveready, Panasonic, Rayovac, Ultra-life Lithium.

1. True
2. False\*

4. Never substitute, modify, add or omit parts.

1. True\*
2. False

5. Prior to using the BioPak 240 Revolution it must be determined that the user is \_\_\_\_\_\_\_\_\_\_.

1. clean shaven
2. medically fit\*
3. sober
4. drug tested

6. Always handle oxygen cylinders with care to \_\_\_\_\_\_\_\_\_\_.

1. prevent damage\*
2. avoid explosion
3. prevent leakage
4. allow for quick replacement

7 **Do not** open the cylinder valve in the presence of open flame, sparks or above ambient temperatures.

1. True
2. False\*

8. Oxygen will enhance the combustion of other materials so that materials that normally will not burn in air will not burn in oxygen-rich atmospheres -- and, materials that do burn in air will burn more vigorously and at a higher temperature in oxygen-rich atmospheres.

1. True
2. False\*

9. Oxygen will cause materials to ignite without the presence of an ignition source.

1. True
2. False\*

10. The use of an SCBA will add to the workload and stress of the user.

1. True\*
2. False

11. The BioPak 240 Revolution is suitable for respiratory protection entry into and escape from oxygen deficient atmospheres with a temperature as low as \_\_\_\_\_\_\_\_\_\_.

1. -15 degrees F (-15F) (-26C)
2. -10 degrees F (-10F) (-23C)
3. -5 degrees F (-5F) (-20C)\*
4. 0 degrees F (0F) (-18C)

12. The BioPak 240 Revolution is approved when the oxygen cylinder is fully charged with compressed medical or aviation grade oxygen at \_\_\_\_\_\_\_\_\_\_.

1. 3250 psi
2. 3150 psi
3. 3000 psi\*
4. 2680 psi

13. Allow the oxygen cylinder to settle after filling to determine the correct pressure.

1. True
2. False\*

14. A foreign gas may cause cylinder \_\_\_\_\_\_\_\_\_\_.

1. rupture
2. corrosion\*
3. expansion
4. explosion

15. Always check for a current hydrostatic test date.

1. True\*
2. False

16. DOT requires carbon fiber wrapped aluminum cylinders be tested by an approved facility on a \_\_\_\_\_\_\_\_\_\_ from the date of manufacture.

1. 3-year cycle
2. 5-year cycle\*
3. 7-year cycle
4. 10-year cycle

17. An unapproved facepiece will compromise the protection provided to the user by the SCBA.

1. True\*
2. False

18. A good facepiece cleaning is important to achieving full protection and proper SCBA duration.

1. True
2. False\*

19. Users should conform to \_\_\_\_\_\_\_\_\_\_ guidelines concerning facial hair and the use of facemasks.

1. DOT
2. manufacturer
3. Part 49
4. None of the above\*

20. Replace the battery when the low battery alarm has activated, after \_\_\_\_\_\_\_\_\_\_ of use or every 6 months whichever comes first.

1. 100 hours
2. 200 hours\*
3. 50 hours
4. 150 hours

21. The connectors of the monitoring device may only be connected to a Bio marine BioPak 240R breathing Apparatus oxygen regulator, manifold block and breathing chamber.

1. True\*
2. False

22. The fiber optic cable may only be connected to the BioPak 240R oxygen regulator.

1. True
2. False\*

23. Turn-Around maintenance procedures should be performed:

1. as soon as possible after each use\*
2. monthly
3. immediately after each use
4. None of the above

24. It is not acceptable to leave the oxygen cylinder in place until after washing and disinfecting has been completed.

1. True
2. False\*

25. Immediately after completion of BioPak use, remove the used CO2 scrubber canisters.

1. True\*
2. False

26. **DO NOT** submerge the \_\_\_\_\_\_\_\_\_\_ during turn-around maintenance.

1. facepiece
2. coolant cartridge
3. alarm module\*
4. entire apparatus

27. **Do not** allow any foreign objects to contact the in input port of the pressure regulator.

1. True
2. False\*

28. Use only cleaners and disinfectants that are approved by \_\_\_\_\_\_\_\_\_\_.

1. DOT
2. Bio marine\*
3. MSHA/NIOSH
4. Part 49

29. If Cleaning is not immediately possible after each use, at a minimum remove and discard the CO2 scrubber and moisture pad.

1. True\*
2. False

30. Remove the oxygen cylinder making sure the seal washer remains in place and install the regulator cover.

1. True\*
2. False

31. Allow all components to remain wetted by the cleaning solution a minimum of \_\_\_\_\_\_\_\_\_.

1. 5 minutes
2. 15 minutes
3. 10 minutes\*
4. 20 minutes

32. Thoroughly rinse all components in \_\_\_\_\_\_\_\_\_\_ to remove all disinfectant solution.

1. distilled water
2. clean water\*
3. rinse solution
4. None of the above

33. C.O.P.D. could interfere with the use of the BioPak 240 Revolution.

1. True
2. False\*

34. Place freeze forms onto a level surface in a freezer for a minimum of 8 hour period at a temperature of \_\_\_\_\_\_\_\_\_\_ or less.

1. 15 degrees F
2. 5 degrees F
3. -5 degrees F
4. None of the above\*

35. If the optional magnetic wiper is utilized soak both chamois surfaces of the wiper pieces with disinfectant.

1. True
2. False\*

36. The manual(s) are the minimum recommended procedures for maintaining the BioPak 240R.

1. True\*
2. False

37. Failure to follow the minimum procedures presented in the manual(s) may violate government or agency approvals as well as void the manufacturer’s warranty.

1. True\*
2. False

38. To prevent bacteria growth, remove the moisture control foam pads after each use.

1. True
2. False\*

39. **Do not** pre-pack any BioPak that will be stored at temperatures at or below \_\_\_\_\_\_\_\_\_\_.

1. 28 degrees F
2. 32 degrees F\*
3. 10 degrees F
4. None of the above

40. Pre-packing the BioPak 240 R with carbon dioxide scrubbers is only permitted when utilizing \_\_\_\_\_\_\_\_\_\_ carbon dioxide scrubber.

1. Airkem 33
2. Orbsorb\*
3. Sodasorb
4. Biosorb

41. Pre-packed carbon dioxide scrubbers may only be stored in the apparatus for a maximum period of \_\_\_\_\_\_\_\_\_\_.

1. 1-year\*
2. 30-days
3. 6-months
4. 2-years

42. Moisture control sponges must be installed dry when pre-packing the BioPak.

1. True\*
2. False

43. Apparatus that are pre-packed with the carbon dioxide scrubber shall be stored within the specific storage temperature and humidity levels and must be sealed air-tight in the apparatus.

1. True\*
2. False

44. Failure to install the moisture pad will result in scrubber \_\_\_\_\_\_\_\_\_\_ and cause elevated carbon dioxide levels in the inhalation gas.

1. failure
2. leakage
3. flooding\*
4. discoloration

45. Users are not permitted to mix versions of the Crodalime within a BioPak.

1. True
2. False\*

46. Install \_\_\_\_\_\_\_\_\_\_ carbon dioxide scrubber canisters into the breathing chamber making sure that they are properly aligned and fully seated.

1. properly sealed
2. permissible
3. tested
4. None of the above\*

47. The alarm system battery shall be replaced after \_\_\_\_\_\_\_\_\_\_ of use, every 6-months or after the alarm system low battery alarm flashes with corresponding horn sounding.

1. 100 hours
2. 200 hours\*
3. 50 hours
4. 150 hours

48. The oxygen cylinder must be fully charged to above \_\_\_\_\_\_\_\_\_\_ to perform a high pressure leak test.

1. 2000 psi
2. 1500 psi\*
3. 2250 psi
4. 3000 psi

49. Use caution when installing the swivel elbow fitting to insure that the O-ring does not roll out of its gland.

1. True
2. False\*

50. The Cylinder should be inspected regularly for signs of damage to the outer wrapping.

1. True\*
2. False

51. The Turn-Around Maintenance Tag should be attached to the apparatus in a prominent location to show \_\_\_\_\_\_\_\_\_\_ of all maintenance steps.

1. compliance
2. completion\*
3. results
4. None of the above

52. In addition to normal Turn-Around Maintenance, the SCBA shall be visually inspected and pressure tested on a \_\_\_\_\_\_\_\_\_\_ basis if the apparatus is being used at least once a month or is placed in long term storage.

1. weekly
2. daily
3. monthly\*
4. bi-monthly

53. BioPaks that have been placed in long term storage should have the Long Term Maintenance Procedure conducted every \_\_\_\_\_\_\_\_\_\_.

1. 6 months\*
2. year
3. 3 months
4. month

54. The oxygen alarm will cease when the pressure gauge reads less than 25 psi.

1. True
2. False\*

55. Never pry an O-ring from its glands with a screwdriver. Remove O-rings by hand or with the pick tool provided in the service kit.

1. True\*
2. False

56. Cristo-Lube and Dow-111 are the only lubricants \_\_\_\_\_\_\_\_\_\_ for use in the apparatus.

1. available
2. recommended
3. approved\*
4. suitable

57. Never moisten the sealing washer that sits between the oxygen cylinder and the pressure regulator.

1. True
2. False\*

58. Cylinders that have been hydro-static tested shall be cleaned for high-pressure oxygen service per national standards.

1. True\*
2. False

59. Cylinders are to be retired from service \_\_\_\_\_\_\_\_\_\_ after the date of manufacture.

1. 5-years
2. 10-years
3. 15-years\*
4. None of the above

60. The Alarm module will require repair if any damage to the housing is discovered.

1. True
2. False\*

61. If the flow does not meet the requirements of the table in the Bench Manual the flow restrictor will need adjustment.

1. True
2. False\*

62. A \_\_\_\_\_\_\_\_\_\_ facemask seal is important to achieving full protection and duration.

1. proper
2. good\*
3. suitable
4. sufficient

63. Personnel who intend to use protective breathing equipment in a dangerous atmosphere must have the proper training, temperament and experience.

1. True\*
2. False

64. A properly trained user will significantly increase the chances of achieving an adequate face seal.

1. True
2. False\*

65. The ongoing effectiveness and reliability of any protective breathing equipment is dependent upon the user’s \_\_\_\_\_\_\_\_\_\_ in maintaining the equipment.

1. standard of care\*
2. training
3. ability
4. dedication

66. The BioPak has been tested for intrinsic safety in methane-air mixtures only.

1. True\*
2. False

67. The carbon dioxide scrubber canister is to be changed in fresh air only. **Do not** change in hazardous areas.

1. True
2. False\*

68. The BioPak is a Self-Contained Closed Circuit Pressure Demand type certified as Entry and Escape with a 4-hour duration.

1. True\*
2. False

69. The constant Add is \_\_\_\_\_\_\_ liters average.

1. 1.5
2. 1.8\*
3. 1.6
4. 1.7

70. The Demand Add flow is a minimum \_\_\_\_\_\_\_\_\_\_ per minute.

1. 60 liters
2. 50 liters
3. 70 liters
4. 80 liters\*

71. The oxygen cylinder has a volume of \_\_\_\_\_\_\_\_\_\_ at 3000 psi.

1. 450 liters
2. 440 liters\*
3. 480 liters
4. 400 liters

72. The BioPak breathing chamber has a Tidal Volume greater than \_\_\_\_\_\_\_\_\_\_.

1. 5 liters
2. 6 liters\*
3. 7 liters
4. 8 liters

73. For extreme temperature ranges, the BioPak should be configured with ice coolers. When ambient temperatures are greater than \_\_\_\_\_\_\_\_\_\_ the recommended duration is no more than \_\_\_\_\_\_\_\_\_\_ and is limited by human endurance.

1. 140 degrees C, 15 minutes
2. 120 degrees F, 20 minutes
3. 140 degrees F, 20 minutes
4. 140 degrees F, 15 minutes\*

74. The emergency Add has a minimum flow rate of \_\_\_\_\_\_\_\_\_\_ per minute.

1. 50 liters
2. 70 liters
3. 80 liters\*
4. 57 liters

75. The BioPak operational conditions as it relates to \_\_\_\_\_\_\_\_\_\_ is 0 to 100%.

1. temperature
2. barometric pressure
3. relative humidity\*
4. None of the above

76. BioPak weight fully charged is \_\_\_\_\_\_\_\_\_\_.

1. 35 pounds
2. 32 pounds
3. 34 pounds\*
4. 33 pounds

77. **Do not** re-use CO2 scrubber chemical.

1. True\*
2. False

78. The flow test results at 0-5280 feet at a cylinder pressure of \_\_\_\_\_\_\_\_\_\_ shall be \_\_\_\_\_\_\_\_\_\_ liters per minute.

1. 1700-2000, 1.8-2.4
2. 1500-2200, 1.8-2.4
3. 1500-2000, 1.8-2.5
4. None of the above\*

79. During an alarm test the LED indication should turn to a flashing red with a horn sounding when the pressure gauge reads between \_\_\_\_\_\_\_\_\_\_ psi.

1. 650-1000\*
2. 850-1200
3. 750-1000
4. 600-1000

80. **Do not** allow oil, grease or other foreign materials to come in contact with cylinder, cylinder valve or cylinder pressure regulator to prevent \_\_\_\_\_\_\_\_\_\_.

1. rust
2. possible ignition\*
3. contamination
4. explosion

81. The end of service life or low Oxygen alarm is a flashing amber light and horn sounding.

1. True
2. False\*

82. The flashing blue light indicates end of service life.

1. True
2. False\*

83. The pressure gauge is protected against sudden loss of oxygen in the event of a gauge line severing by a manual disconnect located at the gauge pass through point of the housing.

1. True\*
2. False

84. A Pacemaker or other Cardiac Condition could limit or prevent the use of the BioPak 240 Revolution.

1. True\*
2. False

85. Breathing difficulties could limit or prevent the use of the BioPak 240 Revolution.

1. True\*
2. False

86. Claustrophobia or anxiety when wearing a SCBA could limit or prevent the use of the BioPak 240 Revolution.

1. True\*
2. False

87. The instructions provided by the **USER** and **BENCHMAN** manuals cannot replace accredited training provided by qualified instructors in the proper and safe use of Bio marine breathing apparatus.

1. True\*
2. False

88. X-Ray evidence of Pneumonia could limit or prevent the use of the BioPak 240 Revolution.

1. True\*
2. False

89. Restless Leg Syndrome could limit or prevent the use of the BioPak 240 Revolution.

1. True
2. False\*

90. Use the \_\_\_\_\_\_\_\_\_\_ hex driver from the service Kit to remove the flow restrictor.

1. 1 inch
2. ¼ inch\*
3. ¾ inch
4. ½ inch