ADVANCED MEDICAL SYSTEMS
OPERATING PROCEDURE

AIR MONITOR SYSTEM CHECK

ISP-7 Rev. 01/95

1.0 PURPOSE: To ensure that the air monitor system is functioning properly.

2.0 PRECAUTIONS AND LIMITATIONS:

2.1 This procedure is a routine safety check. It is to be performed monthly or any time there is an abnormal increase on the monitor.

2.2 The filter paper removed is to be considered a contaminated item. Proper handling procedures must be followed to limit personnel exposure and to prevent the spread of contamination.

2.3 The RSO is to be promptly notified of any system malfunctions.

3.0 INSTRUCTIONS:

3.1 Shut down the air sample vacuum pump.

3.2 Advance the filter paper and remove the old filter. Record the date and time on Form ISP-8A.

3.3 Restart the air vacuum pump.

3.4 Determine the total elapsed time (in minutes) since the last check was performed.

3.5 Calculate the total volume of air in milliliters.

Volume of air = Flowrate x Elapsed time.

Flowrate = 4 cfm or 1.133×10^5 ml/min.

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3.6 Count the old filter in a well counter and record the activity in cpm on Form ISP-8A.

3.7 Calculate activity per ISP-4.

3.8 Calculate the average concentration of activity in the discharged air as follows:

$$\text{uCi/ml} = \frac{\text{filter cpm - bkg cpm}}{(\text{total volume})(2.22 \times 10^{6})(C_{eff})}$$

3.9 The average concentration of discharged air should not exceed 5×10^{-11} uCi/ml.

3.10 Record all information of Form ISP-8A and submit the form to the RSO for review.