

ADVANCED MEDICAL SYSTEMS OPERATING PROCEDURE

AIR MONITOR CALIBRATION

ISP-8 Rev. 01/95

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- 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 quarterly.
 - 2.2 Use care when handling source to prevent damage.
- 3.0 INSTRUCTIONS:
 - 3.1 Notify ADT prior to performing this procedure.
 - 3.2 Set alarms at the maximum set points to avoid spurious alarms.
 - 3.3 Record background level for ten (10) minutes by removing probe from air monitor. Use extreme caution to protect the probe and associated wiring from damage.
 - 3.4 Set the ratemeter to X10 range.
 - 3.5 Place the source against the probe face and allow the system to record for ten (10) minutes.
 - 3.6 Determine detector efficiency (C_{eff}) as follows:
$$C_{eff} = \frac{\text{Source cpm} - \text{Background cpm}}{\text{dpm of Source}}$$
 - 3.7 Compare the ratemeter, chart recorder and ammeter for similar readings.

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Date: *1-24-95*

AIR MONITOR SYSTEM CHECK

ISP-7A

SAMPLE DATA

DATE: _____ TIME: _____

DATE LAST CHECK: _____ TIME: _____

TOTAL ELAPSED TIME: _____ minutes

TOTAL VOLUME: _____ milliliters

COUNTING DATA

COUNTER: _____ SER #: _____ CAL DUE: _____

EFF: _____ BKG: _____ MDC: _____ *

COUNTED BY: _____ DATE/TIME: _____

GCPM: _____ CCPM: _____ ACTIVITY: _____ uCi/ml

$$\text{ACTIVITY} = \frac{\text{CCPM}}{(2.22 \times 10^6)(C_{\text{eff}})(\text{volume})}$$

COMMENTS: _____

*Ref: ISP-4

Performed by: _____ Date: _____

Reviewed by RSO: _____ Date: _____