

APPENDIX I (Continued)

B. Air Monitoring Equipment

There are different methods available for air monitoring. These include colorimetric detector tubes (e.g., National Draeger, Sensidyne, Matheson-Kitagawa, MSA) and realtime remote sensing monitors (e.g., PureAire Monitoring Systems). **NOTE: These air monitoring methods apply to enclosed areas, including greenhouse soil fumigation and commodity fumigation.**

Colorimetric detector tubes (approximately ¼" X 6") produce a color change when methyl bromide is present. The length of this color change indicates the methyl bromide concentration. A specific pump must be used with these tubes; both must be purchased from the same manufacturer. The (upper and lower) detection limits of these tubes vary with manufacturer and model.

Select the tube model which best fits your needs; contact the test equipment manufacturer. The choice of detector tube is in part determined by the duration of exposure. If short-term access (less than one hour) is necessary, a detector tube that measures to 5 ppm would be adequate. To determine entry for longer times or to document that control methods are adequate, a detector tube that measures to a lower detection limit would be appropriate.

A real-time remote sensing monitor could be used as a continuous monitor for methyl bromide concentrations in fumigation chamber control rooms, commodity storage facilities, commodity chilling rooms, and other processing and storage areas where methyl bromide-treated commodities may be present. Areas monitored by this type system, or its equivalent, should not require colorimetric tube sampling.

A real-time monitoring system, equipped with remote sensors or sensor intake ports capable of a minimum detection value of 500 ppb methyl bromide and having a detection lag-time of two minutes or less, may be used to monitor areas where methyl bromide air concentrations may immediately exceed DPR guideline values (630 ppb) or where the buildup of methyl bromide from the off-gassing commodity may also cause concentration greater than 630 ppb. Such a system must include a warning function to indicate where air concentrations have exceeded 630 ppb and an alarm for when concentrations exceed 5 ppm. The system must also include a digital display and be capable of data-logging. Before installation of this type of system, it is strongly recommended that DPR's Worker Health and Safety (WHS) Branch be consulted for proper placement of remote sensors/ports. All manufacturer's requirements and recommendations must be followed. Facilities that install these units as a replacement for colorimetric tube testing should be required to contact WHS staff to confirm the unit's monitoring results.

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