

**APPENDIX 13.1-E  
SAMPLING METHODS\***

SUSPECTED CONTAMINANT	POSSIBLE SAMPLING METHOD
Temperature	<ul style="list-style-type: none"> <li>▪ Thermometer</li> <li>▪ WBGT meter</li> </ul>
Humidity	<ul style="list-style-type: none"> <li>▪ Psychrometer (aspirated or sling)</li> </ul>
Ventilation	<ul style="list-style-type: none"> <li>▪ Air flow measuring equipment (e.g., flow hood, thermoanemometer, pitot tube, etc.)</li> <li>▪ Ventilation smoke tubes or candles</li> <li>▪ Tracer gas</li> </ul>
Carbon dioxide	<ul style="list-style-type: none"> <li>▪ Detector tubes</li> <li>▪ Direct reading</li> <li>▪ Gas sampling bag</li> </ul>
Carbon monoxide	<ul style="list-style-type: none"> <li>▪ Detector tubes,</li> <li>▪ Direct reading</li> <li>▪ Gas sampling bag</li> </ul>
Formaldehyde	<ul style="list-style-type: none"> <li>▪ 2,4-DNPH-treated silica gel tube</li> <li>▪ Waters XPO SURE 2,4-DNPH Pouch media.</li> <li>▪ Passive monitor</li> </ul>
Nitrogen oxides	<ul style="list-style-type: none"> <li>▪ Detector tubes</li> <li>▪ Direct reading</li> <li>▪ Two glass tubes each containing 400 mg Triethanolamine-impregnated molecular sieve separated by an oxidizer tube containing 1 gm of a chromate compound</li> </ul>
Ozone	<ul style="list-style-type: none"> <li>▪ Detector tubes</li> <li>▪ Direct reading</li> <li>▪ Two impregnated glass fiber filters (37mm polystyrene cassette) coated with a solution containing NaNO<sub>2</sub>, K<sub>2</sub>CO<sub>3</sub> and Glycerol in water</li> </ul>
Particulates	<ul style="list-style-type: none"> <li>▪ Tared or matched weight filters – Total</li> <li>▪ Cyclone – Respirable</li> <li>▪ Inhalable sampler - Inhalable</li> <li>▪ Direct reading</li> </ul>
Radon	<ul style="list-style-type: none"> <li>▪ Electret passive radon monitor</li> <li>▪ Direct reading</li> <li>▪ Track-etch detector</li> </ul>
Sulfur dioxide	<ul style="list-style-type: none"> <li>▪ Detector tubes</li> <li>▪ Direct reading</li> <li>▪ Mixed cellulose ester filter followed by cellulose filter treated with Na<sub>2</sub>CO<sub>3</sub></li> <li>▪ Impregnated activated beaded carbon tubes</li> </ul>
Volatile organic compounds [total VOCs or individual VOC (e.g., solvent, pesticide, etc.)]	<ul style="list-style-type: none"> <li>▪ Direct reading (Total VOCs or VOC of interest)</li> <li>▪ Passive monitor (Total VOCs or VOC of interest)</li> <li>▪ Sorbent tubes (VOC of interest)</li> <li>▪ Thermal desorption tubes (Total VOCs screening)</li> <li>▪ Vacuum canister (Total VOCs or VOC of interest)</li> </ul>
Environmental tobacco smoke	<ul style="list-style-type: none"> <li>▪ Sample for components (CO, NO<sub>x</sub>, Aldehydes, etc.)</li> </ul>

\* "IEQ meters" are available that combine relative humidity, temperature and carbon dioxide sampling into a single unit. Depending on the manufacturer, additional sensors may be purchased for some chemicals (e.g., ammonia, carbon monoxide, hydrogen, hydrogen sulfide, nitrogen oxides, oxygen, ozone, sulfur dioxide, VOCs) and particulates. IEQ meters usually have datalogging capabilities that are useful for establishing contaminant patterns throughout the affected work area and/or building.