

## Standard Operating Procedure (SOP) for Portable Refrigerant Alarm Monitoring

Standard Operating Procedure for Portable Refrigerant Alarm Monitoring											
1. Process	<ul style="list-style-type: none"> <li>Entry into a designated area requiring the use of a portable refrigerant alarm monitor.</li> <li>Designated work areas are either listed in the <a href="#">FS Safety Manual</a> and/or are identified by a sign posted on the door</li> </ul>										
2. Equipment	The appropriate monitor to use is the Bacharach PGM-IR, not a 4-gas meter or “wand”. A Bacharach PGM-IR may be located in your shop, or can be checked out at FS Stores.										
3. Personal Protective Equipment (PPE) required when operating this equipment	No specific PPE is required for monitor usage; however, the space being entered may require PPE for the work task being performed or other site conditions.										
4. Training and Administrative Controls	<ul style="list-style-type: none"> <li>A minimum of one entrant <u>must</u> have completed the Refrigerant Monitoring Training class.</li> <li>This written SOP should be reviewed annually during a shop meeting, and attendance documented via the shop meeting sign-in sheet.</li> <li>A copy of this SOP is kept in each portable monitor case for field use and in the FS Safety Manual.</li> </ul>										
5. Equipment set up.	<ul style="list-style-type: none"> <li>Refer to <a href="#">operator manual</a> for any questions</li> <li>Power-on / connect battery pack.</li> <li>Power-on monitor and allow it to warm-up.</li> <li>Select room refrigerant and wait for monitor to save selection and purge</li> </ul> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #a0c0ff;"> <th style="padding: 5px;">Refrigerant Type</th> <th style="padding: 5px;">PEL (PPM)</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">R-22</td> <td style="padding: 5px;">1000</td> </tr> <tr> <td style="padding: 5px;">R134A</td> <td style="padding: 5px;">1000</td> </tr> <tr> <td style="padding: 5px;">R404A</td> <td style="padding: 5px;">1000</td> </tr> <tr> <td style="padding: 5px;">R410A</td> <td style="padding: 5px;">1000</td> </tr> </tbody> </table>	Refrigerant Type	PEL (PPM)	R-22	1000	R134A	1000	R404A	1000	R410A	1000
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<p>6. Safe operating procedures and entry precautions when <b><u>no</u></b> alarm sounds</p>	<p><b>IF AT ANYTIME THE ALARM SOUNDS, PROCEED TO STEP 7.</b></p> <ul style="list-style-type: none"> <li>• Before entering the door posted with the '<a href="#">Restricted Area Refrigerant Sign</a>', insert the probe through the door's undercut and take a reading. If no alarm, open door and proceed.</li> <li>• Enter room. Check low-lying areas* in mechanical room and continue to monitor while proceeding to your work area. <ul style="list-style-type: none"> <li>*Do not enter confined spaces to monitor for refrigerant gas... unless you have a Confined Space Entry Permit.</li> </ul> </li> <li>• Place monitor close to work area and periodically check readings, particularly if the space is noisy.</li> <li>• Complete work.</li> <li>• Exit the space and close the door.</li> <li>• Turn off the monitor and battery pack.</li> <li>• Clean monitor if necessary and properly store in clean/dry location.</li> </ul>
<p>7. Safe operating procedures and entry precautions when an <b><u>alarm sounds</u></b></p>	<ul style="list-style-type: none"> <li>• If alarm sounds, stop, and exit the building.</li> <li>• Call 911.</li> <li>• Call supervisor.</li> <li>• Wait at the building's entrance to provide incident details to Fire Department or FOMS.</li> </ul>