



**Fermilab**  
ES&H Section

## FIELD CALIBRATION TESTING OF THE TMX412 VERSION 2.0 MULTI-GAS MONITOR

2/4/99

### **OBJECTIVE**

To provide instruction on the procedures which must be used to field-test the Industrial Scientific TMX412 Version 2 Multi-Gas Monitor.

### **DISCUSSION**

The TMX412 Multi-Gas Monitor must be field tested before each use. The results of these tests must be recorded on the TMX field test log. The log will be provided by IMAC. If the unit does not pass the field check or it does not have a current calibration sticker, it shall be returned to IMAC for repair or calibration.

### **EQUIPMENT**

1. TMX412 Multi-Gas Monitor
2. TMX Calibration Cup
3. TMX Calibration Gases (CO/O<sub>2</sub>/LEL and H<sub>2</sub>S)
4. Log (attached)

### **PROCEDURE**

1. Log the date and your name in the appropriate spaces.
2. Turn on the instrument by pushing the MODE button and holding it in until RELEASE is displayed, at which time you release the MODE button. Wait about 1.5 minutes for the instrument to beep and begin normal operation in the INSTANT reading mode.
3. Perform battery check by looking at battery status indicator\*, which is located above BATT. If the battery status indicator shows some segments or all segments, the battery is good. Continue to step #4. If battery status indicator is not displayed, battery is dead. Turn instrument off by pressing and holding the MODE button until release is displayed. Do not use. Put instrument on charger station.
4. Press the MODE button twice to see ZERO display. Press the E button to start zeroing and span oxygen sensor. The zeroing process will take about 40 seconds. The unit will beep when finished and display will switch back to INSTANT readings mode.
5. Apply the calibration cup to the instrument and attach the appropriate cylinder of calibration gas.
6. Apply the calibration gas. The displayed meter reading must read within the tolerance of the stated value on the *FIELD CALIBRATION TESTING LOG* (reverse side). If the meter reads beyond the stated value, return the unit to IMAC for calibration.
7. Repeat steps 4 and 5 for the second cylinder of calibration gas.
8. Record results on the field test log.
9. Clear peak readings by pressing MODE 4 times to advance display to PK CLR and then press E. Press MODE twice to advance display to INSTANT readings mode.

