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PROGRAM INFORMATION BULLETIN NO. P07-27



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SUBJECT: General Monitors Model 420, 420d, S500, and S800 Machine Mounted  
Methane Monitoring Systems

**Who needs this information?**

Mine Safety and Health Administration (MSHA) personnel, underground mine operators, miners' representatives, and mine equipment repair/rebuild facilities should have this information.

**Why is MSHA issuing this Program Information Bulletin?**

This Program Information Bulletin (PIB) is to inform the mining community of a retrofit program for the calibration cup for the General Monitors Machine Mounted Methane Monitoring Systems listed in the table below. In addition, General Monitors added a verification ("bump test") to the calibration procedure to ensure the unit is properly calibrated.

**What equipment does this retrofit program affect?**

This retrofit program affects the following General Monitors Machine Mounted Methane Monitoring Systems:

<b>MODEL</b>	<b>MSHA CERTIFICATION NUMBER</b>
420	32A-6/MS-0
420d	32A-16/MS(-0)(-1)(-2)(-3), 32A-01/MD-0
S500	32A-21/MS-0
S800	32A-23/MS-0, 32A-03/MD-0

Calibration cup specifications were added to the MSHA certifications listed in the table above.

**Why do the General Monitors Machine Mounted Methane Monitoring System calibration cups require a retrofit?**

The General Monitors Machine Mounted Methane Monitoring System calibration cups require a retrofit for the following reasons:

- (1) During performance testing at MSHA’s Approval and Certification Center (A&CC) a calibration problem was identified. The monitor appeared to be properly calibrated; however, when the monitor was “bump tested” with the specified calibration kit, inaccurate readings were observed.
- (2) Previously there was no control over the wide variety of calibration cups that were used for calibrating the system. Calibration cup documentation was added to the MSHA certification to ensure the proper calibration cup is used.

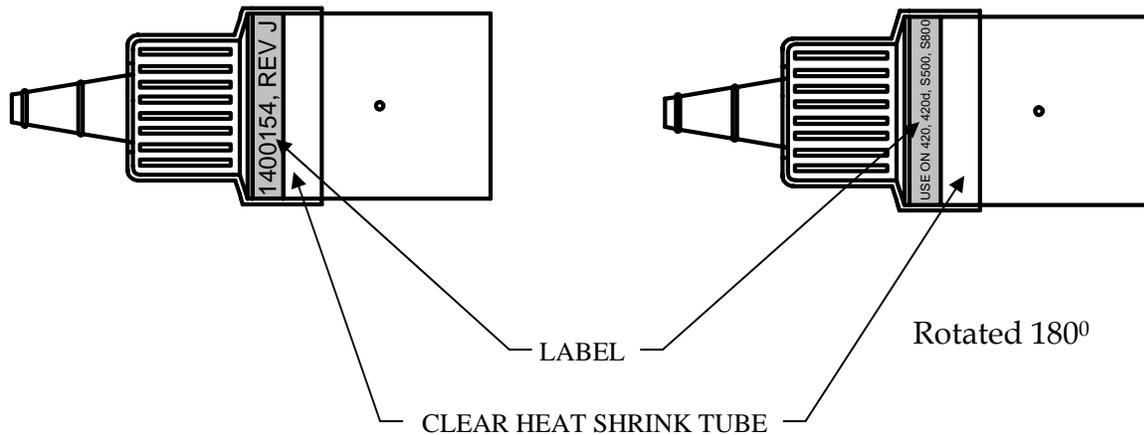
**What modifications were made to the calibration cup?**

The following modifications were made to the calibration cup:

- 1) The calibration cup inside diameter was modified to allow use with the sensor splash guard or dust guard.
- 2) A label was added to the calibration cup to designate the part number, revision, and the Machine Mounted Methane Monitoring System models on which it is used.
- 3) A clear heat-shrink tube was added to the outside of the calibration cup to protect the label and to ensure the calibration cup body and spout remains intact.

### **How can the proper calibration cup be identified?**

The calibration cup can be identified by the label and clear heat shrink tube as shown below. The label contains the part number and revision (1400154, Rev. J) and the models on which it is used (420, 420d, S500, and S800).



### **What modifications were made to the calibration instructions?**

A "bump test" was added to the instructions to verify the unit is properly calibrated.

### **What is the recommended action concerning this retrofit program?**

General Monitors' distributor is providing modified calibration cups and a revised calibration manual to all known customers that use any of the models listed in the table above. If you use any of the models listed in the table above and have not received a modified calibration cup and revised calibration manual, you should contact General Monitors' distributor. See contact information below.

All previous calibration cup designs must be removed from service. All previous calibration cup designs should be disposed of to prevent future use.

**Calibration Cup part number 1400154, Rev. J is the only calibration cup that can be used with the models listed in the table above.**

#### Contact Information:

Mr. Steven F. Tomalewski  
United Central Industrial Supply Company  
649 Blue Ridge Drive  
Apollo, PA 15613-1939

Phone & Fax: 1 (724) 334-7147

Cell: (724) 875-5955

E-mail: [stomalewski@verizon.net](mailto:stomalewski@verizon.net)

**What happens to the Machine Mounted Methane Monitoring Systems that are not calibrated with the modified calibration cup?**

At the conclusion of the retrofit program, **ONLY** General Monitors' Models 420, 420d, S500, and S800 Machine Mounted Methane Monitoring Systems calibrated with the modified calibration cup will be considered as meeting the applicable certification requirements of Title 30 Code of Federal Regulations (30 C.F.R.). The retrofit program will conclude on February 2, 2008.

**What is the background of this PIB?**

During testing of the Model S800 at the A&CC, the monitor failed to provide an impulse to actuate a power shutoff component when a gas mixture concentration of 2.1% methane in air was applied to the sensor. An investigation revealed that the system was not properly calibrated. A "bump test" was added to the calibration procedure to ensure the system is properly calibrated. In addition, the calibration cup was modified and added to the MSHA certifications to ensure that the proper calibration cup is used.

**What is MSHA's authority for this PIB?**

The Federal Mine Safety and Health Act of 1977, as amended, 30 U.S.C. § 801 et seq.; 30 C.F.R. §27.24(b)(1).

**Who are the MSHA contact persons for this PIB?**

Coal Mine Safety and Health, Safety Division  
Steve Gigliotti, (202) 693-9479  
E-mail: [Gigliotti.Stephen@dol.gov](mailto:Gigliotti.Stephen@dol.gov)

Metal and Nonmetal Safety and Health  
Neal Merrifield, (202) 693-9640  
E-mail: [Merrifield.Neal@dol.gov](mailto:Merrifield.Neal@dol.gov)

Technical Support, Approval and Certification Center  
Steve Cole, (304) 547-2304  
E-mail: [Cole.Stephen@dol.gov](mailto:Cole.Stephen@dol.gov)

**Is this PIB available on the internet?**

This PIB may be viewed on the World Wide Web by accessing MSHA's home page at (<http://www.msha.gov>) and choosing "Compliance Info " and "Program Information Bulletins. "

**Who will receive this PIB?**

Program Policy Manual Holders  
MSHA Enforcement  
Underground Mine Operators  
Mine Equipment Repair and Rebuild Facilities  
Miners' Representatives  
Special Interest Groups