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SUBJECT: Re-Issue of P06-06 - MSHA Approved Fan Assemblies that  
Incorporate Pipe Nipple Extensions

**Who needs this information?**

Mine equipment manufacturers, mine equipment rebuild facilities, miners' representatives, underground coal and gassy metal and nonmetal mine operators, Mine Safety and Health Administration (MSHA) enforcement personnel, and other interested parties should have this information.

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

This Program Information Bulletin (PIB) informs the mining industry of the importance of ensuring that conduit boxes of MSHA approved motors, which are mounted outside of fan housings, are secure and the required tackwelds are in place.

Some MSHA approved fan assemblies use extended pipe nipple assemblies to mount the explosion proof conduit box outside of the fan housing. The pipe nipple assembly may consist of a single pipe nipple, or two or more pipe nipples joined by a pipe

coupling. The pipe nipple(s) threads into the motor housing at one end and into the conduit box at the opposite end. Each threaded joint forms a flame-arresting path fit which must be tackwelded to prevent loosening. Fan assemblies that have been in service for an extended period of time may have worn or damaged blades, causing excessive vibration. Because of the length of the pipe nipple(s), the vibration can result in stresses that can cause the tackwelds to break, resulting in loosening of the threaded joints. As the joints loosen, the flame-arresting paths are shortened and the mechanical strength of the joints is reduced. This can compromise the explosion proof integrity of the motor resulting in an unsafe condition. In accordance with the drawings and specifications on file at MSHA, each pipe nipple must be engaged a minimum of five full threads and each threaded joint must be tackwelded to prevent loosening in order for the fan approval to remain valid.

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

MSHA became aware that some MSHA approved fan assemblies that use extended pipe nipple assemblies to mount the explosion proof conduit box of an MSHA approved motor outside the fan housing, experienced loosening of threaded joints. This was likely caused by vibration of the fan blades. This situation is more likely to occur when fan assemblies have been in service for an extended period of time and the fan blades become worn or damaged.

**What steps should be taken?**

MSHA recommends that the tackwelds should be examined to determine if the tackwelds are in place. Fan blades that become worn or damaged may cause excessive vibration that can lead to failure of the assemblies.

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

The Federal Mine Safety and Health Act of 1977; 30 C.F.R. Part 7, Subpart J, §7.304 and Part 18, §§18.20 and 18.37.

**Is this PIB on the Internet?**

This information bulletin may be viewed on the World Wide Web by accessing the MSHA home page (<http://www.msha.gov>), choosing "Rules and Regulations," then "Program Information Bulletins."

**Who is the MSHA contact person for this PIB?**

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**Who will receive this PIB?**

MSHA Program Policy Manual Holders  
Underground Mine Operators  
Manufacturers of Mine Equipment and Mining Products  
Repair and Rebuild Facilities  
Miners' Representatives