

**TITLE: Application Procedure for the Approval of Powder Actuated Devices
Used in Underground Coal and other Gassy Mines****MSHA Mine Safety and Health Administration, Approval & Certification Center**

1.0 PURPOSE

This document establishes a Mine Safety and Health Administration (MSHA) Standard Application Procedure (SAP) for the Approval of Powder Actuated Devices (PAD) for use in Underground Coal and other Gassy Mines under the New Technology section of 30CFR Part 15.

2.0 SCOPE

This procedure applies to all applications for PAD's to obtain a MSHA approval. Since all product designs can't be foreseen, MSHA reserves the right to impose additional requirements to insure product safety.

Further, MSHA may require field trials at the expense of the applicant. Field trials would be outlined by MSHA and conducted at a minimum of three mines for a time period of 45 days with bi-weekly reporting. Any mine field trials would be conducted subsequent to passing the explosion test criterion and the appropriate task training. The applicant would coordinate mine field trial selections in conjunction with the MSHA Approval and Certification Center (A&CC) and the appropriate MSHA mine inspection district or office. The applicant would be responsible for making the field trial arrangements with the mines and providing MSHA with all comments and data gathered from these trials. The MSHA A&CC will coordinate the oversight of the field trials with the appropriate MSHA mine inspection district or office.

3.0 REFERENCES

- 3.1 Approval and Certification Center (A&CC) Cancellation Policy (APOL 1009).
- 3.2 Code of Federal Regulations - 30CFR, PART 15, New Technology
- 3.3 Test Procedure to Determine the Permissibility of Powder Actuated Devices used in Underground Coal and Other Gassy Mines - ASTP 5013.

4.0 DEFINITIONS

- 4.1 Applicant – An individual or organization that manufactures or controls the assembly of a powder actuated device and applies to MSHA for approval.
- 4.2 Powder Actuated Device (PAD) – A hand held tool that is used to install fastening devices powered by the energy created from firing a powder actuated cartridge.

5.0 APPLICATION PROCEDURE

5.1. It is recommended that applicants contact the Quality Assurance & Materials Testing Division at 304-547-0400 to discuss approval and testing requirements prior to submitting an application.

5.1.1. An application requesting approval should be provided to the A&CC by one of the following means:

By Mail:

MSHA Approval and Certification Center
Attention: IPSO
765 Technology Drive
Triadelphia, West Virginia 26059

a. FAX to: 304-547-2044

b. Email Submittals: Application letters, specifications, drawings and other supporting documentation should be sent to zzMSHA-IPSO@DOL.gov

c. FTP Submittals: Application letters and supporting documentation can be placed on the MSHA FTP server, mfgr.msha.gov. Please call the Information Processing Services Office (IPSO) at 304-547-0400 to establish your user account.

5.2. FEES

An hourly fee is charged to process an application. Following the receipt of the application, MSHA will advise the applicant in writing of the estimated

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charges to process the application. The applicant then must sign and return the letter agreeing to the estimated charges before processing can begin. This estimate does not include travel charges for witnessing a test or field trial when required. An incomplete application requiring further correspondence with the applicant will take longer to process. Therefore, it is to the applicant's advantage to submit a complete application with all the information and data requested in this procedure. If final total charges are less than the estimated amount, the lesser amount will be charged.

5.3. Applications must contain the following information:

Refer to the Application Form (Attachment No. 1).

- 5.3.1. The applicant is to assign a 6 digit (or less) numeric code to the application (i.e. Company Application Number). A unique number is required for each application.
- 5.3.2. The company name, address, telephone number, email address (if available) and the applicant's representative responsible for answering any questions.
- 5.3.3. A complete description of the powder actuated device including complete operation and maintenance.
- 5.3.4. A complete description of each variation of cartridge or booster strength/power including the caliber and the weight (mass) of the powder load. The chemical name of each constituent of the powder load (primer and propellant) including its percentage and tolerance shall also be provided. COMMENT--Information on the energy to initiate the powder load (if available) is not critical. The critical aspect is whether the energy produced by initiation of the powder load ignites or doesn't ignite the natural-gas air mixture in the explosion gallery.
- 5.3.5. Quality control information – Provide the following information pertaining to the applicant's quality assurance procedures:
 - 5.3.5.1. Procurement procedures pertaining to the manufacture of the powder actuated cartridges,
 - 5.3.5.2. Manufacturing practices to maintain the PAD and the cartridges/boosters strength or power level,

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- 5.3.5.3. Procedures for recordkeeping, such as quality checks and test results,
- 5.3.5.4. Critical characteristics that will be inspected to ensure that the cartridges/boosters meet the explosion test requirement.
- 5.3.6. Instruction manuals – including operation and safety instruction sheets, handling and storage, warning stickers, recommended practices.
- 5.3.7. Training information including:
 - 5.3.7.1. Description of a program to train and certify operators
 - 5.3.7.2. Training manuals
- 5.3.8. Material Safety Data Sheet (MSDS)
- 5.3.9. Any special testing fixture needed to fire the cartridges in the explosion tests.
- 5.3.10. Provide at least 64 cartridges of each variation of caliber/strength
- 5.3.11. Drawings and cross-sectional views of the following: PAD, test fixture and cartridges (boosters).
- 5.3.12. Shipping/handling/storing instructions for new and spent cartridges
- 5.3.13. U.S. DOT classification of cartridges
- 5.3.14. Any other supporting information such as other hazardous location approvals
- 5.3.15. Signed toxicity statement. (See Attachment No. 2)

6.0 Application Processing

Upon receipt of the application, an estimate for the administrative cost of processing the application (cap letter), will be sent to the applicant. Work will not be conducted on the application until MSHA receives a returned signed fee letter.

7.0 Notification of Discrepancy

The applicant will be notified of any discrepancies that need to be corrected. Discrepancies will be resolved in accordance with the A&CC's Cancellation Policy (APOL 1009).

8.0 Issuance of Approval

8.1. MSHA will provide the applicant with a letter containing the MSHA assigned approval number upon successful completion of its evaluation.

8.2. The approval letter will contain instructions on labeling the approved product. MSHA may permit alternate forms of labeling.

8.2.1. The applicant will attach labeling to the PAD and/or storage containers that incorporates the assigned approval number, safety information, warning notices and use instructions as MSHA directs.

8.3. MSHA reserves the right to rescind an approval number for cause.

8.4. A product may be advertised as "Approved" but terms such as "recommended," "accepted," or "sanctioned" by MSHA must not be used. Further, promotional claims such as "Meets all of MSHA Requirements," must also not be used.

8.5. Post Approval Audits - As part of this approval program, MSHA reserves the right to request samples from the applicant for testing, at no cost to MSHA for post-approval audits. Samples of each product may be requested no more than once a year except for cause.

9.0 Extension of Approval

Any change in the approved product from the documentation on file at MSHA that affects the technical requirements must be submitted to MSHA for approval prior to implementing the change. An extension of approval application is administered in the same manner as the original approval request.

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- Attachment No. 1

PAD Approval Application Form
(Add attachments when convenient.)

Date _____

1. Company Name: _____

Address: _____

Company Representative: _____

2. Company Application Number: _____

3. Telephone No.: _____, Fax No. _____

Email: _____

4. Product Name: _____

Description; Cartridge Caliber/Strength/power level _____

5. Formulation of Cartridge Powder Load

Ingredient	% by weight	Tolerance (± %)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

6. MSDS included: ___ yes ___ no

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7. Test sample cartridges included: ____ yes ____ no
8. Quality assurance information included: ____yes ____no
9. Toxicity Statement included: ____ yes ____no
10. Field Manual included: ____ yes ____ no
11. Training Manuals: ____ yes ____no
12. Safety Instruction Sheet/Placard with warning and recommended practices:
____yes ____ no
13. Description of program to train and certify operators: ____ yes ____ no
14. PAD Drawings: ____ yes ____ no
15. Test Fixture Drawings: ____ yes ____ no
16. DOT classification of cartridges: ____ yes ____ no
17. Shipping/handling/storing instructions for cartridges: ____ yes ____ no
18. Cartridges (boosters); Drawings & Descriptions: ____ yes ____ no

- Attachment No. 2

TOXICITY AND QUALITY ASSURANCE STATEMENT

I certify that the product _____(Trade Name) , submitted under

Company Application No. _____ in its delivered form presents
no toxic hazard.

Furthermore, I certify, that this product in its delivered form will comply with
the specifications submitted to MSHA, A&CC.

Signed _____
(Authorized Company Official)

Title _____

Date _____