

1.0 PURPOSE

This document provides MSHA's Standard Application Procedure (SAP) for the flame testing, evaluation and approval of flame-resistant conveyor belts in accordance with the Code of Federal Regulations (30CFR), Part 14.

2.0 SCOPE

30 CFR, Part 14 establishes flame resistance requirements for MSHA approval of conveyor belts used in underground coal mines. This document describes procedures for applying to MSHA for approval, or extension/modification of approval, of flame-resistant conveyor belts.

3.0 REFERENCES

- 3.1. Approval and Certification Center (A&CC) Cancellation Policy (APOL 1009).
- 3.2. 30CFR, Part 14

4.0 DEFINITIONS

- 4.1. Applicant: An individual or organization that manufactures or controls the production of a conveyor belt and applies to MSHA for approval of conveyor belt for use in underground coal mines.
- 4.2. Approval: A document issued by MSHA, which states that a conveyor belt has met the requirements of Part 14 and which authorizes an approval marking identifying the conveyor belt as approved.
- 4.3. Company assigned application number: A unique six digit number assigned by the applicant for initial tracking of application.
- 4.4. Chemical name: The name by which each ingredient in a formulation can be specified. Organic ingredients should be named according to the current rules of the International Union of Pure and Applied Chemistry. Inorganic ingredients should be named according to the Chemical Abstract of the American Chemical Society.
- 4.5. Extension of approval: A document issued by MSHA, which states that a change to a product previously approved by MSHA meets the requirements

of Part 14 and which authorizes the continued use of the approval marking after the appropriate extension number has been added.

- 4.6. Flame-retardant ingredient: A material that inhibits ignition or flame propagation.
- 4.7. Flammable ingredient: A material that is capable of combustion.
- 4.8. Inert ingredient: A material that does not contribute to combustion.
- 4.9. Preauthorization notice: A statement by the applicant authorizing MSHA to expend a stated amount of money in evaluating/testing the applicant's product prior to the preparation and issuance of the MSHA fee estimate.
- 4.10. Revised Approval Modification Program (RAMP): A program designed to expedite changes and/or updates to existing MSHA approvals.

5.0 APPLICATION PROCEDURE

- 5.1. It is recommended that applicants contact the Quality Assurance and Materials Testing Division at 304-547-0400 to discuss approval and testing requirements prior to submitting an application.
- 5.2. An application requesting approval or extension of flame-resistant conveyor belt can be sent to the following address:

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

- a. FAX to: 304-547-0244
- 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.

- 5.3. An application must address either a single specific construction, or a construction consisting of the same cover compound and carcass construction varying only by the number of plies and fabric weight. If approval of variable-ply construction is requested, the minimum and maximum number of plies both with thinnest specified cover thickness and the heaviest-specified fabric weight will be tested.
- 5.3.1. Each application for approval of a product must be in the English Language and include the information requested in Sections 5.3.2 thru 5.3.22 below. These steps correspond to an application form located in Attachments 1A, 1B, and 1C of this document. That form can be filled out and submitted or applicants may use it as a template to create their own application form.
- 5.3.2. Company information (Attach. 1A, Item 1): Provide the following information:
 - a. Company name
 - b. Address
 - c. Telephone number, FAX number, E-mail address
 - d. Name of company representative that will go on approval letter
 - e. Name of company point of contact for the application
- 5.3.3. Provide your company Employer Identification Number (EIN) and Tax Identification Number (TIN) in (Attach 1A, Item 1).
- 5.3.4. A company assigned application number (Attach. 1A, Item 2): a six, or fewer, digit number created by the applicant for tracking purposes.
- 5.3.5. The applicant must state whether they manufacture or control the production of the conveyor belt (Attach. 1A, Item 3a).
- 5.3.6. If the applicant does not manufacture the product, the applicant must provide the product manufacturer's name, address, contact information, and a company point of contact. The applicant must also explain how they exercises control over production (Attach. 1A, Items 3b & 3c).

- 5.3.7. The applicant may announce objections to the presence of outside observers during MSHA's testing of the belt samples submitted by the applicant. If the applicant objects to outside observers, the applicant should describe the basis for those objections (Attach. 1A, Item 4).
- 5.3.8. Trade name/ID # of belt (Attach. 1A, Item 5): The name or designation that the belt will be marketed and sold under.
- 5.3.9. Belt thickness and top and bottom cover thicknesses (Attach. 1B, Item 6).
- 5.3.10. Top cover compound: type of rubber and designation (Attach. 1B, Item 7): Provide the types of rubber used in the cover (ex: SBR/NR) and how the cover compound will be identified (ex: FR01, 1320, etc.)
- 5.3.11. Bottom cover compound: type of rubber & designation (Attach. 1B, Item 8): Use same format as for top cover information.
- 5.3.12. Skim or gum coat (Attach. 1B, Item 9): Provide type of rubber and compound designation in same format as top & bottom covers.
- 5.3.13. Friction coat (Attach. 1B, Item 10): Provide type of rubber and compound designation in same format as top & bottom covers.
- 5.3.14. Carcass construction and number of plies (Attach. 1B, Item 11): Identify if construction is multi-ply, solid woven, etc. and provide number of plies
- 5.3.15. Carcass fabric type (Attach. 1B, Item 11a): Provide the type of fabric for the warp, weft, and binder (ex: Polyester/Nylon/Nylon).
- 5.3.16. Carcass fabric weight (Attach. 1B, Item 11b): Provide the weight of a single ply of fabric in ounces per square yard.
- 5.3.17. Carcass fabric treatment (Attach. 1B, Item 11c): Identify the type of fabric treatment (ex: RFL).
- 5.3.18. Breaker or floated ply (Attach. 1B, Item 12): If the belt contains breaker(s) or floated plies, indicate their location(s). Also provide fabric information including warp/weft, weight in oz/yd², and fabric treatment.
- 5.3.19. Metal cord belt information (Attach. 1B, Item 13): Provide a physical description of the cords, the cord diameter, and the cord pitch.

- 5.3.20. Description of samples for testing (Attach. 1B, Item 14): Upon request by MSHA, the applicant must submit at least three belt samples for testing. Describe the construction of the test samples. The description should include the number of plies, cover thicknesses, and the fabric weight in oz/yd². Each sample must be 60 ± 1/4 inches long by 9 ± 1/8 inches wide.
- 5.3.21. Preauthorization of funds (Attach. 1C, Item 15): This entry is OPTIONAL. If you would like to expedite the application process, you can preauthorize an amount of money to cover the cost of completing the application.
- 5.3.22. Rubber Compound Formulations (Attach. 1C, Item 16): If applying for a range of plies, cover thicknesses, and/or fabric weights, an applicant must provide the rubber compound formulations used in the belt. This can be done by one of the following two methods:
- a. Method A: Specify each ingredient by its chemical name along with its percentage (by weight) and tolerance or percentage range.
 - b. Method B: Specify each flame-retardant ingredient by its chemical or generic name with its percentage and tolerance, percentage range, or its minimum percent. List each flammable ingredient and each inert ingredient by chemical, generic, or trade name along with the total percentage of all flammable and inert ingredients.
- 5.3.23. Quality Statement (Attach. 1C, Item 17): The applicant must sign a statement that certifies if granted an approval, the finished conveyor belt will meet the Quality Assurance requirements described in 30CFR§14.8.
- 5.4. Applications for Extension of Approval and Revised Approval Modification Program (RAMP) requests
- 5.4.1. Any change in an approved conveyor belt (from the documentation on file at MSHA) that affects the flame resistance of an approved belt must be submitted for approval prior to implementing the change. Each application for an extension to an approval or RAMP request must include:
- 5.4.2. Each extension of approval application or RAMP request must be in the English Language and include the information identified in Sections 5.4.3 thru 5.4.10 below. These steps correspond to an application form located

in Attachment 2A of this document. That form can be filled out and submitted or applicants may use it as a template to create their own application form.

- 5.4.3. Company information (Attach. 2A, Item 1): Provide the following:
- a. Company name
 - b. Address
 - c. Telephone Number, FAX number, E-mail address
 - d. Name of company representative
- 5.4.4. Provide your company Employer Identification Number (EIN) and Tax Identification Number (TIN) in (Attach 1A, Item 1).
- 5.4.5. Company assigned application number (Attach. 2A, Item 2): a six, or fewer, digit number created by the applicant for tracking purposes.
- 5.4.6. MSHA approval number (Attach. 2A, Item 3): Provide the number of the MSHA approval that is to be extended or modified. (ex: 14-CBA110055)
- 5.4.7. Change to existing approval (Attach. 2A, Item 4): Explain how and why the existing approval should be extended or modified.
- 5.4.8. Description of samples for testing (Attach. 2A, Item 5): Upon request by MSHA, the applicant must submit at least three belt samples for testing. Describe the construction of the test samples. The description should include the number of plies, cover thicknesses, and the fabric weight in oz/yd². Each sample must be 60 ± 1/4 inches long by 9 ± 1/8 inches wide.
- 5.4.9. Waiver of belt sample testing (Attach. 2A, Item 6): If the applicant believes the change to the approval will not require flame testing, explain the reason(s).
- 5.4.10. Rubber formulations (Attach. 2A, Item 7): For evaluation of a belt without testing, provide the formulation for each compound used in the belt construction by one on the following two methods:
- a. Method A: Specify each ingredient by its chemical name along with its percentage (by weight) and tolerance or percentage range.

- c. Method B: Specify each flame-retardant ingredient by its chemical or generic name with its percentage and tolerance, percentage range, or its minimum percent. List each flammable ingredient and each inert ingredient by chemical, generic, or trade name along with the total percentage of all flammable and inert ingredients.

5.4.11. Preauthorization of funds (Attach. 2A, Item 8): This entry is OPTIONAL. If you would like to expedite the application process, you can preauthorize an amount of money to cover the cost of completing the approval extension or RAMP.

6.0 APPLICATION PROCESSING

- 6.1. Upon receipt of a complete application, MSHA will prepare an estimate for the cost of application processing (a "CAP" letter) and send it to the applicant. Or, the applicant may submit a preauthorization notice with their application to eliminate the "CAP" letter. The preauthorization notice permits immediate evaluation work to begin. Check with MSHA personnel for an estimate of cost.
- 6.2. In developing an estimate, MSHA projects the time necessary to evaluate the product. The applicant will be charged a lesser amount if the actual time expended is less than estimated.
- 6.3. Once the applicant authorizes MSHA to begin the evaluation, MSHA will determine if testing, additional information, samples, or material is required to evaluate an application.
- 6.4. If an applicant chooses to cancel, MSHA will charge fees for work performed prior to the cancellation.
- 6.5. After completing the evaluation, MSHA will issue an approval or provide reasons for denying approval. The approval will authorize an approval marking for the product.

TITLE: Application Procedure for Flame-Resistant Conveyor Belt; 30 CFR, Part 14
MSHA Mine Safety and Health Administration, Approval & Certification Center

Attachment 1A

**Application Form - Approval of Conveyor Belt under 30CFR§14
MSHA A&CC**

1. Company Name: _____
Address: _____

Phone #: _____ FAX No#: _____ E-mail: _____
Name of Company Rep. (for Approval letter): _____
Company EIN _____ Company TIN _____
Company Point of Contact for Application: _____

2. Company Assigned Application Number (6 digits or less): _____

- 3a. Check one: This company _____ manufactures the conveyor belt.
This company _____ controls the production of the conveyor belt
(Provide information to 3b and 3c).

- 3b. Provide the name and address of the company that manufactures the product.
Company Name: _____
Address: _____
Phone #: _____ FAX No#: _____ E-mail: _____
Name of Company Representative: _____

- 3c. Describe how the applicant exercises control over the belts production:

4. Does the applicant have any objections to the presence of outside observers
during MSHA testing of the belt(s) submitted? Yes ___ No ___
If yes, why do you object?: _____

5. Trade name/ID # of belt: _____

Attachment 1B

6. Thicknesses: Top Cover: _____ Bottom Cover: _____ Belt _____

7. Top Cover Compound - Type of Rubber (ex: SBR/NR): _____
Top Cover Compound Designation (ex: FR-01, 1320): _____

8. Bottom Cover Compound - Type of Rubber: _____
Bottom Cover Compound Designation: _____

9. Skim or Gum Coat: Yes _____ No _____
If Yes: Type of Rubber: _____ Compound Designation: _____

10. Friction Coat: Yes _____ No _____ If Yes:
If Yes: Type of Rubber: _____ Compound Designation: _____

11. Carcass construction: _____ No. of Plies: _____

11a. Carcass fabric type: Warp _____ Weft (fill) _____ Binder: _____

11b. Carcass fabric weight (in ounces per square yard): _____ oz /yd²

11c. Carcass fabric treatment (ex: RFL): _____

12. Breaker or floated ply?: Yes _____ No _____
If Yes: Location of breaker(s): Top _____ Bottom _____ Both _____
Fabric Type (Warp/Weft): _____
Fabric Weight (oz/yd²) _____
Fabric Treatment: _____

13. Metal cord belt: Description of cords: _____
Diameter of cords: _____
Pitch of cords: _____

14. Describe the samples that will be sent for testing:
(example: "3ply, 3/16" X 1/16" covers, 56 oz/yd² fabric)

Attachment 1C

15. (Optional). An applicant can expedite the application process by preauthorizing funds to complete the application. This saves the time needed to create and send a cost estimate letter and the need for the applicant to reply to that letter. To preauthorize funds, complete the statement below:

Company Name: _____ preauthorizes the expenditure of up to \$_____ to complete this application.

16. If applying for range of plies, cover thicknesses, or fabric weights, an applicant must provide the rubber compound formulations for the belt. Complete rubber formulations as per 30CFR§14.4 (c) and attach to application. Use format shown below:

Formulation Ingredient	% by Weight	Tolerance (\pm %)
_____	_____	_____
_____	_____	_____

17. **If granted an approval, the applicant assures that the MSHA approved conveyor belts produced will meet the Quality Assurance requirements described in 30CFR§14.8.**

Authorized company representative: (name) _____

Date: _____ Signature: _____

Attachment 2A

**Application Form - For Extension of Approval of 30CFR§14 Approved Conveyor Belt
or
Revised Approval Modification Program (RAMP) request.**

1. Company Name: _____
Address: _____

Phone #: _____ FAX #: _____ E-mail: _____

Company Representative: _____

2. Company Assigned Application Number (6 digits or less): _____

3. Provide the MSHA approval number you wish to extend: _____

4. Description or explanation of how the existing approval should be extended:

5. Describe the samples that will be sending for testing:
(example: "3ply, 3/16" X 1/16" covers, 56 oz/yd² fabric)

6. If applicant believes flame testing is not required, explain the reason(s) below:

7. Complete rubber formulations as per 30CFR§14.4 (c) and attach to application.
Use format shown below:

Formulation Ingredient	% by Weight	Tolerance (± %)
_____	_____	_____
_____	_____	_____

8. (Optional) _____ preauthorizes the expenditure of
up to \$_____ to complete this application for extension.