

Title/Subject: Standard Application Procedure for Approval of Flame-Resistant Brattice Cloth and Ventilation Tubing		
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Original Issue Date: 12/07/01	Follow-Up Review Date: 9/01/07	Revision Date: 8/31/04
Signature/Initial: Steven J. Luzik, Chief, Approval and Certification Center		

**Standard Application Procedures for the Approval of Flame Resistant Brattice Cloth and Ventilation Tubing**

1.0 Purpose:

This document establishes a Mine Safety and Health Administration's (MSHA) Standard Application Procedure (SAP) for the Approval of Flame-Resistant Brattice Cloth and Ventilation Tubing under 30 CFR, Part 7, Subparts A & B. Its use is voluntary.

2.0 Scope:

These procedures apply to all applications for Approval of Flame-Resistant Brattice Cloth and Ventilation Tubing according to the Code of Federal Regulations, Title 30, Part 7, Subparts A & B.

3.0 Reference:

3.1 Approval and Certification Center (A&CC) Cancellation Policy (APOL 1009).

3.2 Code of Federal Regulations (30CFR) Part 7, Subparts A & B.

4.0 Definitions:

4.1 Brattice Cloth Family - a product which is manufactured by using one type of film (thickness and weight may vary), one type of scrim (thickness and denier may vary) and one type of adhesive (applied weight may vary).

4.2 Preauthorization - An agreement in the application that confirms and agrees to MSHA's general cost estimate to evaluate the application.

4.3 Ventilation Tubing Family - a product which is manufactured by using one type of base material and one type of resin. The products may differ in; diameter, length, configuration, or average wall thickness.

5.0 Application Procedure:

It is recommended that applicants contact the Approval and Certification Center to discuss approval and testing requirements prior to submitting an application.

5.1 An application requesting an approval or extension of approval should be

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sent to the following address:

Chief  
Approval and Certification Center  
Mine Safety and Health Administration  
RR #1 Box 251, Industrial Park Road  
Triadelphia, West Virginia 26059

5.2 Applicants must conduct their own flame test or have it conducted by a third party. MSHA does not conduct approval testing for brattice cloth and ventilation tubing, although MSHA reserves the right to view or witness the flame tests (see Section 5.6.1). A list of participating Part 7 testing laboratories is attached in Appendix No. 1. MSHA does not “approve” or endorse these laboratories but lists them for the convenience of the applicant.

### 5.3 Brattice Cloth Applications

Applicants should refer to the Brattice Cloth Application Form (Appendix #2) which illustrates the type of information required. Applications must contain the following information:

5.3.1 A 6 digit or less numeric code assigned by the applicant (Application Code).

5.3.2 A complete description of the product including; trade name, product designations, color, type, weight, film, scrim, adhesive, suppliers, supplier’s ID numbers, thickness, weight, percentage of finished product by weight for the film, scrim, and adhesive.

5.3.3 A flame test report from the test laboratory must be provided to MSHA when tests are completed (see Appendix No. 5).

5.3.4 A 12 inch by 12 inch (approximate size) sample of each brattice cloth should be provided with the application.

5.3.5 The name, address, and telephone number of the applicant’s representative responsible for answering any questions regarding the application.

5.3.6 Applicable Certification Statements as described in Appendix No. 4.

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5.3.7 Information related to the Quality Assurance requirement of Section 7.7(a), e.g. inspect or test the critical characteristics of the product.

5.3.8 The place and date of flame testing and details on the specific samples that will be tested.

#### 5.4 Ventilation Tubing Applications

Applicants should refer to the Ventilation Tubing Application Form (Appendix No. 3) which illustrates the type of information required.

5.4.1 A 6 digit or less numeric code assigned by the applicant (Application Code).

5.4.2 A complete description of the tubing to include trade name, product designations, color, type, inside diameter, wall thickness, suspension system, base material, resin, flame retardants, suppliers, supplier's ID numbers, and percentage of finished product by weight for the base material, resin, film, and flame retardants.

5.4.3 The name, address, and telephone number of the applicant's representative responsible for answering any questions regarding the application.

5.4.4 Applicable Certification Statements as described in Appendix No. 4.

5.4.5 Information related to the Quality Assurance requirement of Section 7.7(a), e.g. inspect or test the critical characteristics of the product.

5.4.6 The place and date for flame testing and details on the specific samples that will be tested. Upon completion of testing, a copy of the laboratory's flame test report must be provided to MSHA (see Appendix No. 5).

#### 5.5 Extensions of Approval - Brattice Cloth & Ventilation Tubing

Any change in the approved product from the documentation on file at MSHA that affects the technical requirements (described in Part 7.24) must be submitted to MSHA for approval prior to implementing the change. Each application for an extension of approval shall include the following:

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- 5.5.1 A 6 digit or less numeric code assigned by the applicant (Application Code);
  - 5.5.2 The MSHA-assigned approval number for the product for which the extension is being requested;
  - 5.5.3 A brief description of the proposed change to the previously approved product;
  - 5.5.4 Drawings and specifications which show the change in detail;
  - 5.5.5 A statement as to whether, in the applicant's opinion, the change requires product testing. If testing is not proposed, the applicant shall explain the reasons for not testing;
  - 5.5.6 The place and date for product testing, if testing is required. See Appendix No. 5.
  - 5.5.7 The name, address, and telephone number of the applicant's representative responsible for answering any questions regarding the application.
  - 5.5.8 Applicable Certification Statements as described in Appendix #4.
  - 5.5.9 Information related to the Quality Assurance requirement of Section 7.7(a), e.g. inspect or test the critical characteristics of the product.
- 5.6 Application Processing
- 5.6.1 Upon receipt of a complete application, an estimate for the administrative cost of processing the application (cap letter), that includes the cost for the *time* spent to travel and witness the product testing will be prepared and sent to the applicant. *The cost of the travel and lodging involved with witnessing the test is a separate cost and will be charged to the applicant.*

The applicant may preauthorize the estimate in order to eliminate the "cap" letter. Check with MSHA personnel for the present amount.

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5.6.2 Upon receipt of the company agreement to the cap estimate (or *preauthorization*), MSHA will schedule the trip for the witnessing of the flame tests at the earliest possible convenience of all parties. MSHA's policy is to witness the testing of all first time Part 7 applicants. MSHA will also witness testing at "new" first time laboratories, or may witness tests at laboratories who in the past have demonstrated difficulties in conducting the tests according to the testing standards. MSHA reserves the right to witness any testing.

5.6.3 The applicant will be notified of the products required for approval testing. When a large family of products is presented for approval, it is not necessary to test every product. MSHA's policy is to require testing of the lightest weight and heaviest weight brattice products within each family.

5.6.4 Upon successful testing of the product(s) and receipt of laboratory test data report(s) with certifications, MSHA will prepare an approval letter for the applicant.

5.6.5 If a product should fail the test, one retest will be allowed based on a written request by the applicant. The request for retest must provide the justification for such action, such as improvement in product formulation and amendment of original application. Based upon the justification and at MSHA's discretion, the retest may consist of both sizes that were originally tested; otherwise, only the specific size that passed the test will be issued an approval. MSHA may waive viewing of retests.

#### 5.7 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).

#### 6.0 Responsibility:

The Quality Assurance and Materials Testing Division (QA&MTD) of the Approval & Certification Center (A&CC) is responsible for evaluating and processing the applications. They may be reached at 304-547-0400 for further information.

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7.0 Distribution:

Applicants, MSHA Internet Web Master users and A&CC personnel involved in processing such applications.

8.0 Review:

This document will be reviewed at least once every three years.

9.0 Authority:

30 CFR, Part 7, Subparts A & B.

## Appendix No. 1

### **Part 7K Flame Test Laboratories for Brattice Cloth and Ventilation Tubing**

(Not endorsed or Approved by MSHA, but listed as a convenience)

John Boyle Co. Inc.  
P.O. Box 791  
Salisbury Road  
Statesville, NC 28677  
Telephone: 704-872-6303

Johnston-Morehouse-Dickey Co.  
5401 Progress Boulevard  
Bethel Park, Pennsylvania 15102  
Telephone: 412-833-7100

ABC Corporation  
P.O. Box 77,  
Warsaw, Indiana 46580  
Telephone: 219-267-5166

Schauenburg Flexadux Corp.  
P.O. Box 335,  
569-32 ½ Road  
Clifton, CO 81520  
Telephone: 303-434-6808

Bluefield Manufacturing, Inc.  
P.O. Box 1010  
Industrial Park  
Bluefield, VA 24605  
Telephone: 703-322-3441

The Govmark Organization, Inc.  
96D Allen Boulevard  
Farmingdale, NY 11735  
Telephone: 516-293-8944

**Appendix No. 2**

**BRATTICE CLOTH APPLICATION FORM**

Date \_\_\_\_\_

1. Company Name \_\_\_\_\_  
 Telephone No. (Area Code) \_\_\_\_\_  
 Company Representative \_\_\_\_\_
2. Identifying Code Number \_\_\_\_\_
3. Product Description (Include all variations) \_\_\_\_\_

Trade Names				
Style, Code No. or other designation				
Color				
Type of Brattice (jute, cotton, plastic, etc.)				
1. Thickness				
2. Weight (oz/sq. yd.)				
Type of Film				
1. Film Supplier				
2. Supplier's Stock #				
3. Thickness (mil)				
4. Weight (oz./sq. yd)				
5. Percent of finished product by weight				
Type of Scrim				
1. Scrim Supplier				
2. Supplier's Stock #				
3. Weight (oz./sq. yd)				
4. Threads/inch				
5. Denier				
6. Percent of finished product by weight				
Type of Adhesive				
1. Adhesive Supplier				
2. Suppliers Stock #				
3. Percent of finished product by weight				

**Appendix No. 3**

**VENTILATION TUBING APPLICATION FORM**

Date \_\_\_\_\_

1. Company Name \_\_\_\_\_  
 Telephone No. (Area Code) \_\_\_\_\_  
 Company Representative \_\_\_\_\_
2. Identifying Code Number \_\_\_\_\_
3. Product Description (Include all variations)

Trade Name(s)	
Style, Code No., or other designation	
Color	
Inside diameter(s)	
Length(s)	
Average wall thickness in inches	
Configuration(s) (round, oval, etc.)	
Base material 1. Type fiberglass, vinyl, etc.) 2. Supplier 3. Supplier's stock # 4. Percent finished product by weight	
Resin, coating, etc. 1. Type, (epoxy, etc.) 2. Supplier 3. Supplier's stock # 4. Percent finished product by weight	
Other components (steel, wire, etc.) 1. Type 2. Supplier 3. Supplier's stock # 4. Percent finished product by weight	<hr/> <hr/> <hr/> <hr/>

## Appendix No. 4

### Certification Statements

**Each application shall include certification statements as described in Part 7, Subpart A, Section 7.3(f).**

We \_\_\_\_\_(insert name)\_\_\_\_\_ certify that the product meets the design portion of the technical requirements as specified in 30CFR, Subpart 7B, Section 7.24.

We \_\_\_\_\_(insert name)\_\_\_\_\_ certify that we will perform the Quality Assurance requirements of 30CFR, Subpart A, Section 7.7.

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Signature of Authorized Company Representative

Further;

After completion of the required testing, the ***applicant*** must certify that the product meets the performance portion of the Technical Requirements as specified in 30CFR, Subpart A, Section 7.3(f). However, if an MSHA representative witnesses the testing, this statement is not necessary.

We [insert name] certify that the cable meets the performance requirements of Subpart B, Section 7.27 as specified in 30CFR, Subpart 7B, Section 7.24.

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Signature of Authorized Company Representative

**Appendix No.5**

**Information Needed on Test Reports**

1. Test Procedure
2. Equipment used, including calibration dates
3. Dates of brattice cloth conditioning

Sample Test Form

GENERAL INFORMATION

Product Manufacturer \_\_\_\_\_, MSHA PAR # \_\_\_\_\_ Date \_\_\_\_\_

Testing Laboratory \_\_\_\_\_, Tests Conducted By \_\_\_\_\_

Product Trade Name \_\_\_\_\_, Sample Size \_\_\_\_\_

Air Flow @ 0 FPM \_\_\_\_\_, Air Flow @ 125 FPM \_\_\_\_\_, Suspended Height \_\_\_\_\_ inches

Burner Height 12 inches, Ignition Time: Brattice 25 seconds, Tubing 60 seconds, Video Taped? Y/N \_\_\_\_\_

Brattice: Scrim Count \_\_\_\_\_, Weight (oz./sq. Yd.) \_\_\_\_\_, Color \_\_\_\_\_

Tubing: Wall thickness \_\_\_\_\_, Color \_\_\_\_\_

TESTS RESULTS

0 FPM

Sample #	Propagation (inches)	Burn Time - Suspended (min./sec.)	Burn Time -Floor (min./sec.)	Total Burn Time (min./sec.)
1				
2				
3				
				Average:

125 FPM

1				
2				
3				
				Average:

COMMENTS \_\_\_\_\_

\_\_\_\_\_ Signed \_\_\_\_\_

Date \_\_\_\_\_

Document Information Form

CDS No. ASAP5008 \_\_\_\_\_ Enter (Original):  
(IPSO Assigns) \_\_\_\_\_ Supersede CDS No.: ASAP4027 (dated 12/07/01)  
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Category: XX A (PAR related) \_\_\_\_\_ N (Not PAR related)

Type: SAP (POL, SAP, SOP, STP, LEG, INF, CRI)

Sponsoring Division/Center Chief: Ken A. Sproul

Division/Center Contact: Ken A. Sproul

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_____ External Distribution	Part Section(s)
<u>XX</u> Internal Use Only	<u>All</u> <u>Subparts</u>
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Key Words: Brattice Cloth, Ventilation Tubing, Film, Scrim, Adhesive  
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**Concurrence:**

Technical Review By: Mark Schwartz  
Committee Representative

Administrative Review By: \_\_\_\_\_ Committee Chairperson

Division Chief Concurrence (Initials)

	<u>Yes</u>	<u>No</u>
AED	___	___
ESD	___	___
M&ESD	___	___
QA&MTD	___	___

Authorized By: \_\_\_\_\_ Date \_\_\_\_\_  
Name A&CC Chief or Designate