

TITLE: Application Procedure for 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 REFERENCES

- 3.1. Approval and Certification Center (A&CC) Cancellation Policy (APOL 1009).
- 3.2. Code of Federal Regulations (30 CFR) 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 sent to the following address:

TITLE: Application Procedure for Approval of Flame-Resistant Brattice Cloth and Ventilation Tubing

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 Attachment 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 (Attachment #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 Attachment 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 Attachment No. 4.

TITLE: Application Procedure for Approval of Flame-Resistant Brattice Cloth and Ventilation Tubing

- 5.3.7. Information related to the Quality Assurance requirement of Part 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 (Attachment 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 Attachment No. 4.
- 5.4.5. Information related to the Quality Assurance requirement of Part 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 Attachment 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:

TITLE: Application Procedure for Approval of Flame-Resistant Brattice Cloth and Ventilation Tubing

- 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 Attachment 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 Attachment #4.
- 5.5.9. Information related to the Quality Assurance requirement of Part 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.

- 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

TITLE: Application Procedure for Approval of Flame-Resistant Brattice Cloth and Ventilation Tubing

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).

Attachment 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

Attachment 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				

Attachment 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	_____ _____ _____ _____

Attachment 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.

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 30 CFR, 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 30 CFR, Subpart B, Section 7.27 as specified in Subpart 7B, Section 7.24.

Signature of Authorized Company Representative

Attachment 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 _____