



## Technical Bulletin #1

### Equipment/Uniforms CF02

#### A GUIDE TO EQUIPMENT REQUIREMENTS

**Summary:** This guide is designed to give CFF members an Overview of the regulations for equipment that will be controlled and enforced at the Commonwealth Fencing Championships 2002.

The definitive requirements are contained in the FIE Rules for Competitions.

#### Basic Requirements:

**FIE Clothing – Jackets, breeches, underplastron**

**Masks – FIE labels**

**Blades - FIE Stamped**

(A tournament shop will be on hand to supply complying equipment **pre ordered** by Commonwealth Members at discounted prices. Details in the next bulletin)

**Name & Country (three letter code) on Lame/Jacket**

(A service will be available at the competition to print these names **by prior arrangement**. Details in the next bulletin)

The guide is prepared by Ted Li  
Weapon Control and Armoury Manager  
Commonwealth Fencing 2002.

To discuss any technical matter contact Ted at: [tli@pingry.k12.nj.us](mailto:tli@pingry.k12.nj.us)

## A GUIDE TO EQUIPMENT REQUIREMENTS – CF02

**Summary:** This guide is designed to give members an overview of the regulations for equipment that will be enforced and controlled at the Commonwealth Fencing Championships 2002.

### **Basic Requirements:**

**FIE Clothing – Jackets, breeches, underplastron**

**Masks – FIE labels**

**FIE Stamped Blades**

**Name & Country (three letter code) on Lamé/Jacket**

In order to compete in the Commonwealth Championships (as with the Olympic Games, World Championships, F.I.E. World Cups, and other international events), athletes must have equipment and uniforms that conform to the F.I.E. standards. Details of these standards are found in:

### **Book 3 of the F.I.E. Rules for Competitions**

**Note:** The BFA English version, The **FIE Rules For Competitions** is the Official Rule Book for CFC and mandates the requirements for such equipment. The following is a brief overview. It is not a substitute and must be used as a guide only.

#### **ITEM            RULE**

#### **Clothing        m.25.3**

The **jacket**, the **plastron**, and the **fencing breeches must carry an F.I.E. label** certifying that the material is resistant to **800 Newtons** of force, as tested according to the procedures detailed in Appendix A to the Rules

#### **Mask            m.25**

The **mask must carry an F.I.E. label** certifying that the design meets the F.I.E. design criteria, including having bib material that will resist **1600 Newtons** of force.

#### **Foil              m.6-m.13, m.25-m.29**

#### **Lamé            m.28**

1. The maximum electrical resistance between any two points on the electrically conductive material is 5 ohms (m.28.a)
2. The cut of the metallic vest must be a straight line between the point of junction at the groin and the two points corresponding to the tops of the hip bones.
3. The minimum height of the collar must be 3 cm.
4. The band of non-conductive material passing between the legs must be at least 3 cm wide
5. **The competitor's name and country code must appear on the back of the metallic jacket in dark blue or blue-black, block Roman letters between 8.0 and 10.0 cm high.**

#### **Body Wires    m.29**

1. The electrical resistance of any one wire must be less than 1.0 ohm.
2. There must be at least 40 cm of free wire between the alligator clip and the 3-prong plug.

## COMMONWEALTH FENCING 2002

3. The wire from the alligator clip to the 3-prong plug must be soldered to the alligator clip. No other method of attachment has been approved by the SEMI Committee of the F.I.E.
4. The alligator clip must be equivalent to the Mueller #27 clip, with jaws at least 10 mm.

### Foils:

#### **m.1-m.13**

1. The maximum length of a foil is 110 cm. The maximum length of the blade is 90 cm, and the maximum length of the handle is 20 cm.
2. The maximum weight of a foil is 500 g.
3. The handle, if orthopaedic, must fix the position of the hand on the grip in one, and only one, position, no more than 2 cm from the inner surface of the guard.
4. The handle should be electrically insulated.
5. The maximum diameter of the guard is 120 mm
6. The convex surface of the guard must be smooth, so that it can neither hold nor catch an opponent's point, nor present a safety hazard.
7. The guard and handle must be able to pass through the 120 mm x 150 mm test cylinder.
8. **The blade must carry the F.I.E. seal** certifying that it meets the material and manufacturing criteria of the F.I.E. (Appendix A of the Rules)
9. The maximum curvature of the blade must be less than 2 cm
10. The edges of the blade must be chamfered (m.8)
11. The blade must be mounted with the widest side mounted horizontally.
12. The flexibility of the blade, when tested with a 200 g weight, must be between 5.5 cm and 9.5 cm.
13. The body of the point and the foil blade for a length of 15 cm must be electrically insulated.
14. The blade wire must be insulated with a single piece of tubing from the point where the wire enters the guard to guard socket.
15. The electrical resistance of the foil must be less than 2.0 ohms
16. The tip spring must to reset a 500 g weight

### Epee:

#### **m14-m.20**

1. The maximum length of an epee is 110 cm. The maximum length of the blade is 90 cm, and the maximum length of the handle is 20 cm.
2. The maximum weight of an epee is 770 g.
3. The handle, of orthopaedic, must fix the position of the hand on the grip in one, and only one, position, no more than 2 cm from the inner surface of the guard.
4. The handle should not be electrically insulated, and cannot be covered by any material that may hide a switch.
5. The maximum diameter of the guard is 135 mm; its maximum depth is 5.5 cm; its maximum mounting eccentricity is 3.5 cm.
6. The convex surface of the guard must be smooth, so that it can neither hold nor catch an opponent's point, nor present a safety hazard.
7. The guard and handle must be able to pass through the 135 mm x 150 mm test cylinder.
8. **The blade must carry the F.I.E. seal** certifying that it meets the material and manufacturing criteria of the F.I.E. (Appendix A of the Rules)
9. The maximum curvature of the blade must be less than 1.0 cm

## COMMONWEALTH FENCING 2002

10. The edges of the blade must be chamfered (m.8)
11. The blade must be mounted with the widest side mounted horizontally.
12. The flexibility of the blade, when tested with a 200 g weight, must be between 4.5 cm and 7.0 cm.
13. The blade wires must be insulated with separate pieces of tubing from the point where the wire enters the guard-to-guard socket.
14. The tip must have a chamfered edge.
15. The electrical resistance of the epee must be less than 2.0 ohms
16. The tip must be held in place by two screws or other method approved by the SEMI Committee of the F.I.E.
17. The tip pressure spring must reset a 750 g weight.
18. The 1.5 mm gauge must fit between the tip and the body of the point.
19. The lighting stroke must be more than 0.05 mm.

**Sabre: m.21-m.35**

**Mask: m.32-m.35**

1. **The mask must carry an F.I.E. label** certifying its design and its bib material capable of resisting 1500 Newtons of force.
2. The mask must have a maximum electrical resistance of less than 3.0 ohms between any two points, including the facing on the bib.

**Body Wires: m.32**

1. The mask cord must be between 30 cm and 40 cm long. If “curly cord” is used, its maximum length is 30 cm “at rest.”
2. The alligator clips of the body wires must be soldered onto wire itself.
3. The electrical resistance of any one wire must be less than 1.0 ohm.
4. On the body wire, there must be at least 40 cm of free wire between the alligator clip and the 3-prong plug.
5. The alligator clip must be equivalent to the Mueller #27 clip, with jaws at least 10 mm.

**Conductive Jacket and Over-Glove:**

**m.33-m.35**

1. The electrical sabre glove's or over-glove's (*manchette*) maximum electrical resistance is 5.0 ohms.
2. The over-glove must have at least a 5.0 cm “turn-under” and an elastic band or similar device to ensure good electrical contact with the sleeve of the conductive jacket.
3. The overglove's conductive material does not cover the back of the hand, and the overglove should be designed so that it cannot move up the forearm (e.g. have finger loops).
4. The maximum electrical resistance between any two points on the conductive jacket is 5.0 ohms.
6. The conductive jacket must have a conductive tab or pocket 2 cm x 3 cm, attached to the middle of the back, below the collar for the attachment of the mask cord.
7. The minimum height of the collar must be 3 cm.
8. the band of non-conductive material passing between the legs must be at least 3 cm wide.
9. **The competitor's name and country code must appear on the back of the metallic jacket in dark blue or blue-black, block Roman letters between 8.0 and 10.0 cm high.**

**Sabres: m.21-24**

1. The maximum length of a sabre is 105 cm. The maximum length of the blade is 88 cm, and the maximum length of the handle and pommel is 17 cm.
2. The maximum weight of a sabre is 500 g.
3. the handle and the pommel must be electrically insulated, as must the guard, 7.0-8.0 cm from the pommel. There should be no insulation on the convex face of the guard
4. The maximum size of the guard is 15 cm x 14 cm
5. the convex surface of the guard must be smooth, so that it can neither hold nor catch an opponent's point, nor present a safety hazard.
6. The inside of the guard should be electrically insulated
7. the guard and handle must be able to pass through the 15 cm x 14 cm test cylinder.
8. **The blade must carry an "S2000" seal** certifying that it meets the stiffness criterion of the F.I.E. (Appendix A of the Rules)
9. the maximum curvature of the blade is 4.0 cm
10. the minimum width of the tip is 4 mm; the
11. the minimum thickness of the cutting edge of the blade must be 1.2 mm.
12. the flexibility of the blade, when tested with a 200 g weight, must be between 4.0 cm and 7.0 cm.
13. the maximum electrical resistance of the sabre is 1.0 ohm.