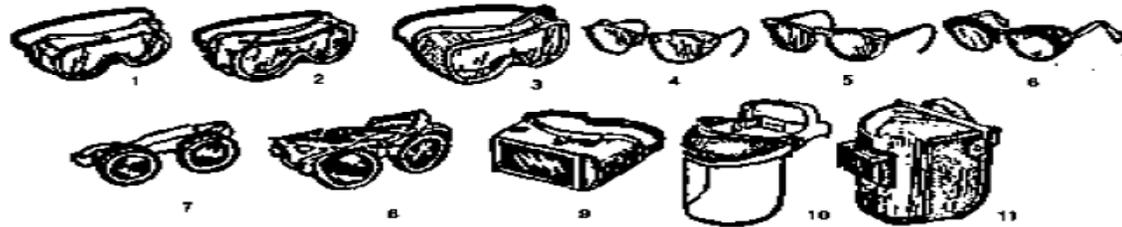


## Appendix A

**Table 3-1 Eye and Face Protector Selection Guide.**



- 1. Goggles, Flexible Fitting, Regular Ventilation
- 2. Goggles, Flexible Fitting, Hooded Ventilation
- 3. Goggles, Cushioned Fitting, Rigid Body
- \*4. Spectacles, Metal Frame, with Sideshields
- \*5. Spectacles, Plastic Frame, with Sideshields
- \*6. Spectacles, Metal-Plastic Frame, with Sideshields

- \*\*7. Welding Goggles, Eyecup Type, Tinted Lenses (Illustrated)
- 7A. Chipping Goggles, Eyecup Type, Clear Safety Lenses (Not Illustrated)
- \*8. Welding Goggles, Coverspec Type Tinted Lenses (Illustrated)
- 8A. Chipping Goggles, Coverspec Type, Clear Safety Lenses (Not Illustrated)
- \*\*9. Welding Goggles, Coverspec Type, Tinted Plate Lens
- 10. Face Shield (Available with Plastic or Mesh Window)
- \*\*11. Welding Helmets

### APPLICATIONS

**Operation**

Acetylene –Burning  
 Acetylene –Cutting  
 Particles Chemical Handling  
 Chipping  
 Sparks, Intense Rays,  
 advisable) Furnace Operations  
 Flying Particles  
 Flying Particles  
 Chemical Splash, Glass Breakage

**Hazards**

Sparks, Harmful Rays,  
 Molten Metal,  
 Splash, Acid Burns, Fumes  
 Flying Particles  
 9, 11 (11 in combination with 4, 5, 6, in tinted lenses,  
 Glare, Heat, Molten Metal  
 1, 3, 4, 5, 6, 10  
 1, 3, 7A, 8A (For severe exposure add 10)  
 2 (10 when in combination with 4, 5, 6)

**Recommended Protectors:**

7, 8, 9, Acetylene –Welding Flying  
 2, 10 (For severe exposure add 10 over 2)  
 1, 3, 4, 5, 6, 7A, 8A Electric (Arc) Welding  
 7, 8, 9 (For severe exposure add 10) Molten Metal  
 Grinding –Heavy Grinding –Light  
 Laboratory

Machining  
 Molten Metals  
 Spot Welding

Flying Particles  
 Heat, Glare, Sparks, Splash  
 Flying Particles, Sparks

1, 3, 4, 5, 6, 10  
 7, 9 (10 in combination with 4, 5, 6, in tinted lenses)  
 1, 3, 4, 5, 6, 10

\*Non-side shield spectacles are available for limited hazard use requiring only frontal protection.  
 \*\*See Table 3-2, in this appendix, Filter Lens Shade Numbers for Protection Against Radiant Energy.

EXISTING  
 APPENDIX TO RULE 4123:1-3-03.  
 Appendix  
 4123:1-3-03

**Table 3-2. Filter lens shade numbers for protection against Radiant Energy.**

<b>WELDING OPERATION</b>	<b>SHADE NUMBER</b>
Shielded metal-arc welding 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes.....	10
Gas-shielded arc welding (nonferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes.....	11
Gas-shielded arc welding (ferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes.....	12
Shielded metal-arc welding 3/16-, 7/32-, 1/4-inch diameter electrodes.....	12
5/16-, 3/8-inch diameter electrodes.....	14
Atomic hydrogen welding.....	10-14
Carbon-arc welding.....	14
Soldering.....	2
Torch brazing.....	3 or 4
Light cutting, up to 1 inch.....	3 or 4
Medium cutting, 1 inch to 6 inches.....	4 or 5
Heavy cutting, over 6 inches.....	5 or 6
Gas welding (light), up to 1/8-inch.....	4 or 5
Gas welding (medium), 1/8-inch to 1/2-inch.....	5 or 6
Gas welding (heavy), over 1/2-inch.....	6 or 8

**Table 3-3. Selecting laser safety glass.**

<b>INTENSITY</b>	<b>ATTENUATION</b>	
<b>CW maximum power density (watts/cm<sup>2</sup>)</b>	<b>Optical density (O.D.)</b>	<b>Attenuation factor</b>
10 <sup>-2</sup>	5	10 <sup>5</sup>
10 <sup>-1</sup>	6	10 <sup>6</sup>
1.0	7	10 <sup>7</sup>
10.0	8	10 <sup>8</sup>

APPENDIX TO RULE 4123:1-3-03 – continued

EXAMPLE 3-A. SAMPLE WARNING SIGN FOR LASER USE.



APPENDIX TO RULE 4123:1-3-03 – continued

EXAMPLE 3-B. SAMPLE WARNING SIGN FOR LASER USE.



**APPENDIX TO RULE 4123:1-3-03 – continued**

**Table 3-4. Guide for Selection of Respirators.**

<b>Hazard</b>	<b>Respirator</b>
<b>OXYGEN DEFICIENCY</b>	Self-contained breathing apparatus. Hose mask with blower. Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.
<b>GAS AND VAPOR CONTAMINANTS</b> Immediately dangerous to life or health.	Self-contained breathing apparatus. Hose mask with blower. Air-purifying, full facepiece respirator with chemical canister (gas mask) Self-rescue mouthpiece respirator (for escape only). Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.
Not immediately dangerous to life or health.	Air-line respirator. Hose mask without blower. Air-purifying, half-mask or mouthpiece respirator with chemical cartridge.
<b>PARTICULATE CONTAMINANTS</b> Immediately dangerous to life or health.	Self-contained breathing apparatus. Hose mask with blower. Air-purifying, full facepiece respirator with appropriate filter. Self-rescue mouthpiece respirator (for escape only). Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.
Not immediately dangerous to life or health.	Air-purifying, half-mask or mouthpiece respirator with filter pad or cartridge. Air-line respirator. Air-line abrasive-blasting respirator. Hose mask without blower.
<b>COMBINATION GAS, VAPOR, AND PARTICULATE CONTAMINANTS</b> Immediately dangerous to life or health.	Self-contained breathing apparatus. Hose mask with blower. Air-purifying, full facepiece respirator with chemical canister and appropriate filter (gas mask with filter). self-rescue mouthpiece respirator (for escape only). Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.
Not immediately Hose mask without blower.or health.	Air-line respirator.                      dangerous to life Air-purifying, half-mask or mouthpiece respirator with chemical cartridge and appropriate filter.

Table 3-5. Outline for selecting respiratory protective devices.

