(ii) What PPE is necessary;

(iii) How to properly don, doff, adjust, and wear PPE;

(iv) The limitations of the PPE; and,

(v) The proper care, maintenance, useful life and disposal of the PPE.

(2) The employer shall ensure that each affected employee demonstrates the ability to use PPE properly before being allowed to perform work requiring the use of PPE.

(3) The employer shall retrain any employee who does not understand or display the skills required by paragraph (e)(2) of this section. Circumstances where retraining is required include, but are not limited to, situations where:

(i) Changes in occupation or work render previous training obsolete; or

(ii) Changes in the types of PPE to be used render previous training obsolete; or

(iii) Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.

(4) The employer shall verify that each affected employee has received the required training through a document that contains the following information: name of each employee trained, the date(s) of training, and type of training the employee received.

[61 FR 26352, May 24, 1996; 61 FR 29957, June 13, 1996, as amended at 67 FR 44543, July 3, 2002]

§ 1915.153 Eye and face protection.

(a) *General requirements.* (1) The employer shall ensure that each affected employee uses appropriate eye or face protection where there are exposures to eye or face hazards caused by flying particles, molten metal, liquid chemicals, acid or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.

(2) The employer shall ensure that each affected employee uses eye or face protection that provides side protection when there is a hazard from flying objects. Detachable side protectors (e.g., a clip-on or slide-on side shield) meeting the pertinent requirements of this section are acceptable.

(3) The employer shall ensure that each affected employee who wears prescription lenses while engaged in operations that involve eye hazards wears eye protection that incorporates the prescription in its design, unless the employee is protected by eye protection that can be worn over prescription lenses without disturbing the proper position of either the PPE or the prescription lenses.

(4) The employer shall ensure that each affected employee uses equipment with filter lenses that have a shade number that provides appropriate protection from injurious light radiation. Table I–1 is a listing of appropriate shade numbers for various operations. If filter lenses are used in goggles worn under a helmet which has a lens, the shade number of the lens in the helmet may be reduced so that the shade numbers of the two lenses will equal the value as shown in Table I–1, § 1915.153.

TABLE I–1—FILTER LENSES FOR PROTECTION AGAINST RADIANT ENERGY

Operations	Electrode size 1/32 in.	Arc current	Minimum protective shade
Shielded metal arc welding	Less than 3	Less than	7
	3–5	60	8
	5–8	60–160	10
	More than 8	160–250	11
		250–550	
Gas metal arc welding and flux cored arc welding.		Less than	7
		60	10
		60–160	10
		160–250	10
		250–500	
Gas Tungsten arc welding		Less than	8
		50	8
		50–150	10
		150–500	

TABLE I–1—FILTER LENSES FOR PROTECTION AGAINST RADIANT ENERGY—Continued

Operations	Electrode size 1/32 in.	Arc current	Minimum protective shade
Air carbon	(Light)	Less than	10
Arc cutting	(Heavy)	500	11
		500–1000	
Plasma arc welding		Less than	6
		20	8
		20–	10
		100	11
		100–	
		400	
		400–	
		800	
Plasma arc cutting	(light)**	Less than 300	8
	(medium)**	300–400	9
	(heavy)**	400–800	10
Torch brazing			3
Torch soldering			2
Carbon Arc welding			14

** These values apply where the actual arc is clearly seen. Lighter filters may be used when the arc is hidden by the workpiece.

FILTER LENSES FOR PROTECTION AGAINST RADIANT ENERGY

Operations	Plate thickness—inches	Plate thickness—mm	Minimum* protective shade
Gas welding:			
Light	Under 1/8	Under 3.2	4
Medium	1/8 to 1/2	3.2 to 12.7	5
Heavy	Over 1/2	Over 12.7	6
Oxygen cutting			
Light	Under 1	Under 25	3
Medium	1 to 6	25 to 150	4
Heavy	Over 6	Over 150	5

* As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.

(b) *Criteria for protective eye and face devices.* (1) Protective eye and face devices purchased after May 20, 1982, shall comply with the American National Standards Institute, ANSI Z87.1–1989, ''Practice for Occupational and Educational Eye and Face Protection,'' which is incorporated by reference as specified in §1915.5, or shall be demonstrated by the employer to be equally effective.

(2) Eye and face protective devices purchased before May 20, 1982, shall comply with ''American National Standard Practice for Occupational and Educational Eye and Face Protection, Z87.1 –1979,'' which is incorporated by reference as specified in §1915.5, or shall be demonstrated by the employer to be equally effective.

§ 1915.154 Respiratory protection.

Respiratory protection for shipyard employment is covered by 29 CFR 1910.134.

§ 1915.155 Head protection.

(a) *Use.* (1) The employer shall ensure that each affected employee wears a protective helmet when working in areas where there is a potential for injury to the head from falling objects.

(2) The employer shall ensure that each affected employee wears a protective helmet designed to reduce electrical shock hazards where there is potential for electric shock or burns due to contact with exposed electrical conductors which could contact the head.

(b) *Criteria for protective helmets.* (1) Protective helmets purchased after August 22, 1996, shall comply with ANSI