FLASHBURN

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To achieve a safe working conditions in the metal fabrication and welding industry, all personnel should be able to recognize the hazards which apply to their particular occupation. Welding operators must also understand the standard operating procedures for the equipment. An operator can be subjected to many safety hazards associated with the industry.

According to Schalkwyk(2011), there are larger chances of getting an injury during welding than any other works within a general or construction company. Welding, cutting and brazing are hazardous activities that pose a unique combination of both safety and risk to more than 500,000 workers in a wide varieties of industries. The risk from fatal injuries alone is more than 4 deaths per thousand workers over a working lifetime.

The operator will also encounter particular hazards associated with welding. As in most trade, welders are exposed to certain hazards and may be injured through incorrect lifting practices, unsafe use of tools and machineries and improperly designed work areas. Hazards exist with all arc welding and allied processes.

Welding is safe when safe practices are followed. Even others who are working in the area of welding operations are at risk from hazards such as fire, fumes, radiation, explosions, electrocution, inadequate illumination, extreme pressure and temperature or flying slag and noise.
According to Frederick Muller (2011), eye injuries among welders are common and can be avoided. It vary from flashburn, dust particles and foreign bodies embedded in the eye.

Flashburn is the most common to welders especially for the beginners and emitted by the arc welding process hazards known as radiation. Brief exposure can produce inflammation of the cornea of the eye. The symptoms of flashburn do not appear until several hours of exposure (similar to sunburn). Pain, watering of the eyes and photophobia (intolerance to light) occur. These symptoms may last several days, in severe cases, but generally subside leaving no permanent or residual damage. Prolonged exposure to radiation can cause permanent damage to eyes in the form of impaired vision and cataracts.

The amount of radiation emitted from the arc depends on several factors such as the welding process, the type of electrode, the amperage and the arc length. High current density welding process such as the tungsten inert gas (GTAW) and gas metal arc (GMAW) arc process, in particular, emit powerful radiation.

The eyes can be protected by using correct type of face shield or welding helmet for welding and grinding work and shield the area to avoid people in the area being exposed.

Welders do not wear a welding helmet for fashion, or to look good. Although there are some pretty sweet and good looking welding helmet these days. The bright blue welding arc can cook the welders eyeballs if not protected properly.
References:

Frederick Muller (2011), How to take your personal safety to the next level, Philippine Welding Society.,Inc pp 3-5


Leon Van Schalkyk(2011)-Philippine-Welder-Society/welders-and-their-role-to-achieve-a-flawless-project pp 8-10