

Occupational Exposure to Ultraviolet Radiation

POSITION STATEMENT

Developed by the AIHA® Exposure Assessment Strategies Committee

Adopted by AIHA Board of Directors: March 2006



Ultraviolet (UV) radiation is a form of non-ionizing electromagnetic radiation that is divided into three regions based upon biological effects: UV-A (315-400 nm), UV-B (280-315 nm), and UV- C (100-280 nm). UV radiation has been associated with human skin cancer and other adverse health effects.

It is the position of the American Industrial Hygiene Association (AIHA) that the following information regarding occupational exposure to UV radiation is supported by scientific research and field studies:

1. Broad-spectrum UV radiation is classified as a known human carcinogen.
2. UV radiation can cause other harmful health effects from both chronic and acute exposures including erythema, accelerated skin aging, cataracts, retinal burns, photokeratitis, genetic mutation, photosensitivity and immune suppression.
3. Many occupations expose workers to excessive amounts of UV radiation from natural sunlight or other manmade sources such as germicidal lamps, welding, and blast furnaces.
4. Occupational exposures to harmful UV radiation can be prevented or minimized through the use of engineering, administrative and personnel protective equipment controls.
5. Diseases caused by UV radiation exposure can be mitigated through the use of comprehensive medical surveillance, awareness and treatment programs,
6. There is still an immense misunderstanding by the public and industrial hygienists regarding the harmful effects of UV radiation and the benefits that could be achieved by an aggressive prevention and protection policy.

As a result of the above beliefs, the AIHA supports and encourages the following activities:

1. Continued research into occupational UV radiation exposure to include health effects, exposure assessment and employee exposure monitoring, training methods, prevention equipment and techniques, medical surveillance and treatment, and behavior modification.
2. Regulatory agency inspection and enforcement of existing standards and guidelines for environmental surveillance and worker protection. This may include the use of existing American Conference of Governmental Industrial Hygienist (ACGIH) Threshold Limit Values (TLVs) for UV radiation.
3. Development of programs and procedures for the control of exposures and protection of workers from harmful UV radiation in the workplace. This should also include employee exposure monitoring, medical surveillance programs and education and awareness.

In light of the number of workers exposed, the levels of exposure, and the subsequent health effects, the AIHA also encourages industrial hygienists and other occupational and environmental health and safety specialists to take the following actions:

1. Take a lead and proactive role in their institutions and organizations to increase management, worker, and public awareness about the hazards of exposure to UV radiation.
2. Learn more about UV radiation and effective control techniques regarding occupational exposures.