Lighting the Path to a Safe Workplace

Courtesy of
State Compensation Insurance Fund

Workplace lighting can have an effect on the productivity, health, and the safety of workers. The type of lighting depends on the task, the environment, and the visual preference or the needs of the worker. A well-designed lighting maintenance program is important to maintain safe working environments.

Workers must feel visually and physically at ease performing their jobs. The work environment must be free of glare, flicker, reflections, and shadows. Also, incorrect or poorly placed lighting can cause health problems. When workers aren’t able to see properly, they will tend to squint or lean forward or backward in order to compensate. An awkward body position can lead to visual fatigue, blurred vision, eyestrain, headaches, nausea or neck and back pain. Good lighting allows workers to maintain comfortable work positions. With better visibility, worker concentration is improved and work accuracy and speed is increased.

Having good lighting will help to minimize the risk of occupational accidents. Studies have shown that the eye’s response to color depends on the amount of available light. Colors are used in many workplaces to increase safety, such as start and stop buttons, resistors, and tags for lock-out procedures are often color-coded. However, if workers cannot distinguish between colors due to poor lighting, the possibility of accidents may increase. Glare can also cause problems when distinguishing between colors or reading labels or warning signs. Insufficient lighting in corridors, stairways and exits (where accidents and crime are more likely to occur) could put the personal safety of workers at risk.

The most effective way to determine and select good lighting is to examine the layout, surface finish, material flow, and worker needs, then experiment with different types, configurations, and levels of lighting. Feedback from workers will also help in selecting the right lighting. Obtaining the best lighting levels may require adding light with skylights and extra windows or decreasing it with filters, shades, screens, curtains or canopies. Other situations may require combining light sources. Improved lighting can sometimes be achieved by using more daylight, changing the position of the light source or workstation layout or by effectively using reflected light. It’s important to train workers to adjust lighting, documents and workstations when needed.

Regularly clean and replace fixtures to maintain lighting levels and conserve energy.
An adequately lit workplace results in a more active, positive environment and improves work performance and worker morale. • •