PPE – Eyes: Fatality Report



INCIDENT

In the early 1990s, Troy Bridgeman worked for Hammond Power Solutions on Southgate Drive. It was a fun place to work and he made a lot of friends with people in the plant as well as with the office staff and managers.

Apart from his job as a transformer coil winder, he was a shop steward and a member of the health and safety committee.

The company had recently introduced a rule requiring everyone on the shop floor to wear safety glasses. It is a standard policy in most manufacturing facilities today, but back then it was met with some resistance. People argued the glasses were uncomfortable and unflattering and that wearing them all the time, even when they weren't brazing or doing some other potentially eye-threatening activity, was unnecessary. They had worked in the plant for years without injuring their eyes, so why should they have to start wearing glasses now?

He wasn't a big fan of the new rule either but, as a committee member, he was obligated to help implement the policy.

The health and safety manager took his job very seriously and was always looking for ways to make the workplace safer.

He called a meeting with all the employees to address their concerns and shared a story about a personal experience he had regarding eye safety.

He told us that he wore safety glasses whenever he did yard work around his home and that he had taken a lot of ribbing from his neighbor because of it.

One day, he was mowing his lawn and, sure enough, his neighbor started making fun of his glasses. He tried to ignore him and carried on mowing the lawn until he heard his neighbor groan in agony. The blade from the lawnmower struck a stone, shattering it and sending shards in all directions. One of the fragments hit his neighbor directly in the eye and nearly blinded him.

The manager told the story with grave seriousness, but something about it was funny.

Perhaps it was the irony and the inappropriateness of laughing at his neighbor's misfortune during a serious company meeting. He tried to suppress the laughter, the stronger it came bubbling to the surface.

The health and safety manager were not impressed and centered him out.

He finally asked him if he found something funny about the story.

“No,” he responded, summoning every bit of will power to stop laughing.

It wasn’t the first or only time his sense of humor got him in trouble, but it is the first time it came back to bite him years later.

He had a large hedge separating his yard from his neighbors on both sides. Twice a year he rented an industrial hedge trimmer to cut it back. A dirty, sweaty job and it is also dangerous.

He had never worn safety glasses while cutting the hedge, but this year decided to do so. However, when he couldn’t find a pair in the house, after a short search, he carried on without them. After all, he never got injured trimming the hedge before.

Within minutes a rogue piece of shrub shrapnel hit him directly in the white of my right eye, cutting it so bad it bled.

The pain was excruciating and he feared he might have caused permanent damage. Luckily, he didn’t, but did manage to find a pair of glasses after that.

Most of his friends laughed when he told them the story and asked why he wasn’t wearing safety glasses.

He is embarrassed to admit it took 20 years and the threat of losing an eye to learn that valuable lesson.

Troy Bridgeman is a Guelph author and journalist. His column appears Wednesdays in the Guelph Mercury.

NEED TO KNOW

There are important steps that industry can take to protect the eyes of its workers.

The first step is to assess work areas for accidents that can be caused by impact, heat, chemicals, dust, glare and optical radiation. The second is to have a good, sound safety program in place that mandates that 100 percent of employees, managers and visitors follow eye safety rules.

BUSINESS / REGULATIONS

OSHA standards require

OSHA standards require that employers provide workers with suitable eye protection. To be effective, the eyewear must be of the appropriate type for the hazard encountered and properly fitted. For example, the BLS survey showed that 94 percent of the injuries to workers wearing eye protection resulted from objects or chemicals going around or under the protector.

There is not a one-size-fits-all standard for every industry, so safety managers must assess what types of safety gear to purchase. All safety glasses and goggles should be American National Standards Institute (ANSI Z87.1) certified for industrial eye protection, with the Z87 mark on the frames or lenses.

B.L.S FINDINGS:

- BLS reports that nearly three out of every five workers injured were not wearing

eye protection at the time of the accident.

- Wearing the wrong kind of eye protection for the job. About 40 percent of the injured workers were wearing some form of eye protection when the accident occurred. These workers were most likely to be wearing eyeglasses with no side shields, though injuries among employees wearing full-cup or flat-fold side shields occurred, as well.
- BLS found that almost 70 per cent of the accidents studied resulted from flying or falling objects or sparks striking the eye. Injured workers estimated that nearly three-fifths of the objects were smaller than a pinhead. Most of the particles were said to be traveling faster than a hand-thrown object when the accident occurred.
- Contact with chemicals caused one-fifth of the injuries. Other accidents were caused by objects swinging from a fixed or attached position, like tree limbs, ropes, chains, or tools which were pulled into the eye while the worker was using them.
- BLS reported that more than 40 percent of injuries studied occurred among craft workers, like mechanics, repairers, carpenters, and plumbers.
- Over a third of the injured workers were operators, such as assemblers, sanders, and grinding machine operators.
- Laborers suffered about one-fifth of the eye injuries.
- Almost half the injured workers were employed in manufacturing; slightly more than 20 percent were in construction.

STATISTICS

Eye Injury Prevention Fact Sheet

- Each day, an estimated 2,000 workers suffer eye injuries on the job, which not only robs many of them of their sight, but also costs employers and insurance companies millions of dollars a year. These injuries incur more than $924 million annually in workers' compensation, and nearly $4 billion in wage and productivity losses, according to the U.S. Bureau of Labor Statistics (BLS). No dollar figure can adequately reflect the personal toll these accidents take on the injured workers. "Yet 90 percent of all workplace eye injuries are preventable with the use of proper eyewear and safety measures," said Daniel D. Garrett, Prevent Blindness America (PBA) spokesperson.
- According to the U.S. Consumer Product Safety Commission, in 2002, welding equipment contributed to more than 11,000 eye injuries treated in U.S. hospital emergency rooms, with power grinders and buffers coming in second with nearly 10,000 eye injuries.

PREVENTION

"An ounce of prevention will yield a pound of cure"

Wearing the **appropriate** eye protection far outweighs a pound of cure!!

BLS reported that more than 50 percent of workers injured while wearing eye protection thought the eyewear had minimized their injuries. But nearly half the workers also felt that another type of protection could have better prevented or reduced the injuries they suffered.

10 ways to prevent an eye injury in your workplace.

1. **ASSESS!** Look carefully at plant operations. Inspect all work areas, access routes, and equipment for hazards to eyes. Study eye accident and injury reports. Identify operations and areas that present eye hazards.

2. **TEST!** Uncorrected vision problems can cause accidents. Provide vision testing during routine employee physical exams.
3. **PROTECT!** Select protective eyewear that is designed for the specific duty or hazard. Protective eyewear must meet the current standards from the Occupational Safety and Health Act of 1970 and later revisions.
4. **PARTICIPATE!** Create a 100 percent mandatory program for eye protection in all operation areas of your plant. A broad program prevents more injuries and is easier to enforce than one that limits eye protection to certain departments, areas, or jobs.
5. **FIT!** Workers need protective eyewear that fits well and is comfortable. Have eyewear fitted by an eye care professional or someone trained to do this. Provide repairs for eyewear and require each worker to be in charge of his or her own gear.
6. **PLAN FOR AN EMERGENCY!** Set up first-aid procedures for eye injuries. Have eyewash stations that are easy to get to, especially where chemicals are used. Train workers in basic first-aid and identify those with more advanced training.
7. **EDUCATE!** Conduct ongoing educational programs to create, keep up, and highlight the need for protective eyewear. Add eye safety to your regular employee training programs and to new employee orientation.
8. **SUPPORT!** Management support is key to having a successful eye safety program. Management can show their support for the program by wearing protective eyewear whenever and wherever needed.
9. **REVIEW!** Regularly review and update your accident prevention policies. Your goal should be NO eye injuries or accidents!
10. **PUT IT IN WRITING!** Once your safety program is created, put it in writing. Display a copy of the policy in work and employee gathering areas. Include a review of the policy in new employee orientation.