

## **EYE PROTECTION MATTERS—A Case Study at Cooper Farms** ***Extreme Workplace Environments Put Eyewear to the Test***

By Ariel Rodriguez, product manager, Uvex by Sperian

A leading provider of quality turkey and chicken products, Ohio-based Cooper Farms places health and safety issues right at the top of the list. Following guidelines established by the USDA, EPA, and Ohio Department of Agriculture, Cooper Farms makes sure customers receive nothing less than a safe, healthy food product at all times.

But the daily activities associated with working in a poultry processing plant also present unusual safety challenges for the more than 450 employees who are out on the floor each day. Just ask Kevin Reed, the Cooper Farms Safety Manager who is responsible for personnel safety issues -- including eye protection -- in an environment where workers often come into close contact with biological materials and are regularly subject to extreme fogging conditions.

"Eye protection is a crucial part of our workplace safety program at Cooper Farms. From airborne particles to extreme fogging conditions, our workers are exposed to a variety of challenging situations," says Mr. Reed. "I know solutions are out there. For me, it's just a question of finding someone who can give me the answers."

In Kevin Reed's case, that "someone" has proven to be his local Sales Representative for Uvex products from Bacou-Daloz in Smithfield, RI. Reed elaborates, "Having someone on your team who knows the products that are available and who can recommend ways to solve our problems is key to managing a successful eye safety program."

### **The applications may be different, but the issues are the same.**

The safety issues encountered at Cooper Farms may be in some ways unique to the food processing industry but they are not really so different from those experienced in steel plants, construction sites, and a host of new workplace environments spawned by today's technology. Safety eyewear must be able to protect against a mixed bag of hazards, whether they be metal projectiles, chemicals, wood shavings, or even animal particles. Special lens coatings are also used to eliminate fogging and increase the life of the lens by reducing scratching. In addition, the availability of specialized lens tints helps alleviate the adverse effects of a variety of lighting conditions that may be present in the workplace. Whether it's food processing, industrial applications, healthcare, construction or military, today's technology offers solutions to a variety of challenging workplace environments.

### **Coatings provide solutions for specific, challenging issues.**

Throughout their workday, employees at Cooper Farms transition between two environments where the temperature goes from 38° to 50° which can result in instant fogging. To help keep their eyewear free from fogging, employees at Cooper Farms rely on Uvex safety eyewear with Uvextreme® anti-fog coating. Because Uvextreme is a dual-action coating that combines both hydrophilic (water loving) and hydrophobic (water repelling) properties, Cooper Farms employees can enjoy a clear field of vision – even in extreme environments. This helps them stay safe and remain efficient. "When the lens is exposed to extreme moisture or humidity, its hydrophilic properties take over to absorb and release moisture from the lens," says Phil Johnson, Director of Technology at Uvex. "If the lens reaches the point of saturation, the hydrophobic properties take over, causing the moisture to drip right off the lens without interrupting vision or causing the wearer to remove the eyewear."

In addition to anti-fog coatings, other coatings are used that significantly reduce scratching and harmful effects of chemical splashing. The best of these coatings are permanently bonded to the lens surface, thus providing long-lasting scratch protection and resistance against the harmful effects of many chemicals. Most importantly, these coatings help to retain optical quality and extend visual clarity for the life of the lens. And because the lenses last longer, the cost of ownership is lowered.

### **Some hazards need a higher level of impact protection.**

According to OSHA, one of the primary reasons eye injuries occur is from not wearing any eye protection. At Cooper Farms, protective eyewear is a must. Workers are subjected to projectiles that include bone fragments and other biological matter from manual handling or from operating machinery. ANSI (the American National Standards Institute) is the non-governmental agency charged by OSHA with writing the specific standards for Personal Protective Equipment. According to ANSI, protective eyewear must meet the ANSI Z87.1 industrial standard and be marked with the manufacturer's logo on each lens and with "Z87" or "Z87+" on all component parts including frames and temples. The Z87+ marking indicates it has passed the ANSI high velocity impact standard, which means the eyewear can withstand an impact from a projectile traveling 150 feet per second.

For companies like Cooper Farms that want additional impact protection, some brands offer safety eyewear designed to pass the U.S. Military's MIL V<sub>0</sub> ballistic test for impact. This test requires that certified products withstand the impact of high-caliber, misshapen projectiles moving at the rate of 650 feet per second. Eyewear that passes MIL V<sub>0</sub> protects against impact energies seven times higher than ANSI standards require. "Although it's not a requirement, it's comforting to know that users across all industries can enjoy the same level of protection as prescribed by the U.S. Military for our armed forces," says Phil Johnson.

### **Using the right tint can make a big difference in workplace safety.**

As Cooper Farm's Reed says, "Making the wrong choice in eyewear protection can lead to a situation where the glasses are as much a hazard as the work itself." Here's a case in point. A worker in a dimly lit industrial work area is wearing glasses with a gray tint more suited for bright outdoor lighting. He's navigating a catwalk and places his safety in jeopardy by having his clear vision severely restricted. In this situation, specialized tints will provide the answer.

In these situations, it is important to look for companies that offer specially tinted lenses that match up with specific tasks and work environments. Clear and amber-tinted lenses are best suited for most indoor and low-light work conditions where enhancement of contrast may be needed. Gray or mirrored lenses are most often used outdoors to reduce glare and eye fatigue while increasing comfort.

Specialized tints can also be used to solve specific lighting challenges. When intense yellow or sodium vapor lighting is present, a light blue lens filter can be used to overcome the effects. Vermillion -- or pink-colored lenses -- can reduce glare from fluorescent and halogen lighting and will also increase contrast for inspection processes.

Back at the Farm, Kevin Reed talks about another daily routine in the poultry processing plant. "Every night, our sanitation crew moves through the plant with high speed, hot water power washers. In our business, it is essential that all biological materials are effectively and safely removed from the premises." This is the type of operation that would require protective lenses with special coatings and tints described here -- anti-fog for clear vision, a hard coating to protect the lens surface, and a specialized tint to enhance visibility in unique lighting situations.

### **These days, function alone does not ensure compliance. Not by a long shot.**

There is one more aspect of eye protection that is essential to having workers comply with safety regulations. "If it's not comfortable and doesn't look good, it won't be worn," says Johnson. To help ensure compliance, a company must offer protective eyewear that is specifically designed for comfort and adjustability. Gone are the days when protective eyewear was functional, but nothing else. Today's products combine protection, style, and comfort all in safety eyewear that solve specific problems, can be worn for hours on end without fatigue, and that look great.

The bottom line? Workers today need eyewear that protects, improves visibility, and increases productivity for every occupation while maintaining fit, comfort, and style. Each year, the world's evolving technology creates new situations and environments where products that do just that are absolutely essential. Fortunately, companies that can recommend solutions for you are close at hand. As Kevin Reed said, "For me, it's just a question of finding someone who can give me the answers." For you, simply pick up the phone, call a top level manufacturer of safety eyewear, and start asking some hard questions.

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