Providing Cooling Gear in Challenging Conditions

Vortec’s cooling vests solve a challenge at an electrical equipment recycling facility by standing up to the heat of Alabama summers

Keeping workers cool while protected from hazardous materials was a 10-year quest at TCI of Alabama, an electrical equipment recycling facility located about a half hour drive from Birmingham, AL. Thanks to Vortec’s cooling and heating vests that concern has been resolved.

TCI of Alabama, a 23-year old company employing 100 workers, serves a wide range of clients including industry, utility companies, hospitals, universities and governmental institutions by recycling their obsolete oil filled transformers and other electrical equipment. Among the materials they recycle are old underground high-voltage power cables. Many of these older cables contain PCB’s and lead, so they must be handled with care.

Paul Eddins, Environmental Health and Safety Director for TCI, explains the dilemma the company has faced: “Because of the lead, it’s necessary to maintain negative air pressure in our cable stripping areas. Our workers wear protective gear including coveralls and respirators to protect them from the lead. The high number of air exchanges in the room make it impossible to successfully cool the entire area with air conditioners. Added to that is the fact that this area has a west-facing metal wall and that we’re situated in Alabama where our summer temperatures frequently rise above 100 degrees Fahrenheit.”

Early on, TCI tried a variety of approaches to resolve this dilemma. An attempt at air conditioning the entire area proved unsuccessful not only due to the air exchanges but because cool air could not reach the workers through their protective gear. Workers were given ice vests at one point, but these proved to be “too much of a headache,” Eddins notes. “They were messy—the vests sweated and the ice didn’t last long. The condensation created potential health problems for our employees.”

Eddins also experimented with other brands of personal air conditioners (PACs) but found them unsatisfactory. “The vests made by other companies use cloth material which became easily saturated with sweat. There was a whole mold and mildew issue due to the material the vests were made of. Also there were problems with hose connection points on the vests breaking or tearing.
“After ten years of trying other things, I heard about Vortec,” Eddins recalls. “It was obvious to me right away just from their website that their vests were completely different. Instead of using a woven cloth fabric, the Vortec vests are comprised of solid plastic which makes them easy to clean and disinfect. In addition to that, the connection tubes are attached to the vests more reliably. Unlike the other vests we tried by Vortec’s competitors, the Vortec vests don’t get kinks in the hose and then come loose. There’s a strong enough connection so the worker wearing the vest receives a steady, yet adjustable supply of cool air.”

TCI of Alabama has used Vortec’s cooling vests for over three years. Eddins notes that the Vortec vests have an additional advantage. “Besides being highly effective personal cooling systems, the Vortec vests also cover a wider range of body sizes.” Eddins declares himself a satisfied Vortec customer: “I see no reason to ever use any other product for personal cooling—besides distributing one as standard equipment to each worker in the cable stripping area, we’ve purchased some additional ones for other areas of our facility. There are less expensive versions of personal coolers out there, but they don’t really compare in terms of performance. Vortec is worth the money.”