

# YOUR PPE IS MORE THAN A REQUIREMENT — IT'S A LIFE-SAVING TOOL

## Apparel PPE is a Frontline Defense, just like a Hard Hat or Fall Protection

### Key Message

FR clothing deserves the same thoughtful selection and respect as other critical safety equipment for the job; It's not an afterthought, but one of your main lines of defense against work site dangers.

### Overview

- Your FR apparel is working just as hard as your other PPE, providing a critical barrier between you and multiple hazards simultaneously.
- Its main purpose is to protect against arc flash, but given the outside nature of linework it is also designed to withstand and shield the wearer from inclement weather or even extreme heat.
- Just as you'd wear fall protection for certain work scenarios, FR clothing should also be purposefully chosen for specific weather conditions as opposed to simply for compliance reasons.

## Choosing Heat-Adapted FR Clothing Reduces Fatigue and Boosts Safety

### Key Message

FR gear that helps regulate your core body temperature not only helps keep you comfortable throughout the day but also improves safety by reducing the risk of heat stress and allowing workers to maintain peak performance longer.

### Overview

- Comfort isn't just about feeling good in your PPE, but also about maintaining physical and mental performance, particularly around high voltage equipment.



- Choosing FR that's engineered for heat helps your body's natural cooling systems work more efficiently, preventing fatigue and cognitive impairments, thus reducing risk of injury.
- When clothing traps moisture, the body must work harder to cool itself. The effects of heat exhaustion can be subtle at first but can quickly become more debilitating without proper mitigation – heat-adapted FR helps to prevent this.

## The Difference Between PPE that Meets Basic Standards and Gear Designed for Heat

### Key Message

Gear that only covers basic compliance doesn't cut it. A CAT and Arc rating are the minimum standard — optimal protection from hazards on the job also includes weather which requires gear designed for real-world conditions.

### Overview

- Simply meeting compliance doesn't cut it in hot weather. Heavy, restrictive fabrics trap heat and retain sweat, limiting mobility while failing to keep the body cool.
- FR clothing that's engineered for hot weather maintains the same critical safety standards required for an outer layer (CAT 2 minimum) while incorporating advanced fabric technologies that help regulate core body temperature.
- Keeping the body dry is paramount to maintaining a healthy core temperature and comfort.

## The Science of Evaporative Cooling with Technical Inherent FR Fabrics

### Key Message

Understanding how moisture-wicking FR fabrics work helps you make informed choices on the right type of gear for spring and summer.



## Overview

- The body's primary cooling mechanic is evaporation. In other words, sweat moving from the skin to the outside air, transferring heat away with it. These advanced fabrics assist in this process, allowing your body to retain valuable energy.
- These inherent FR fibers use a blend of hydrophilic fibers that pull moisture away from the skin and hydrophobic fibers that push it away and out of the garment to evaporate.
- This process of evaporation creates a continuous moisture management system that keeps the skin dry and the body cool. In essence, the fabric becomes part of your body's system as opposed to fighting against it.

## Staying Dry Prevents Overheating – The Dangers of Sweat-Soaked, Restrictive Garments

### Key Message

FR that utilizes non-moisture wicking fabrics like cotton will absorb sweat and have difficulty drying, thus preventing your body from its ability to effectively cool itself while also restricting mobility.

## Overview

- When FR clothing becomes saturated with sweat, it can increase a worker's risk of heat stress as it prevents the body from properly cooling itself.
- Heavy, wet clothing also restricts movement which naturally makes functions of the job much more difficult.
- FR that is designed to move moistures prevents these issues by effectively moving moisture away from the skin and utilizing unique fabric blends that dry much quicker than traditional fabrics like cotton.