



BERGERON PROTECTIVE CLOTHING

54 SUNCOOK VALLEY HIGHWAY
BARNSTEAD, NH 03218
603 435-6962



Life Expectancy for Protective Clothing



Bergeron Information Station

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Overview

As the NFPA Technical Committee on firefighters protective clothing worked through the Year 2001 Standard on Selection, Care and Maintenance of the protective ensemble, one of the most debated issues was "What is the life expectancy of protective clothing?" Although the committee was not been able to answer this question, and most likely will never be able to determine an exact date, it has become fairly well accepted in the industry that the average life of a turnout suit is three to five years. Recently, the industry has come to believe that the Moisture Barrier layer, which is the most fragile of the components, may not even last that long and should be routinely inspected for continued serviceability. It is important to remember, however, that average means some garments have lasted longer, and other garments not as long. Some segments of the fire service have suggested that since the NFPA clothing standard is revised every five years, that should be the maximum time to leave garments in service. While this would insure that as technology improves, garments would automatically be upgraded to meet new requirements, it could leave the false impression that anything less than five years old is still perfectly compliant.

The reality is that the life span of any protective clothing is entirely dependent upon the type and amount of field use to which each separate garment has been exposed. We have seen clothing that is much older than five years and still in excellent shape; likewise, however, we have seen instances where the first time a garment was worn it was exposed to circumstances that totally destroyed the clothing. Since the purpose of firefighters clothing is to protect the wearer, if the gear has saved a life or prevented serious injury, even just once, then it has done its job.

It is also important to remember that protective clothing is a component system, not a single layer, and each component needs to be evaluated in its own right. For example, we have evaluated garments wherein the Outer Shell appears visually to be in excellent condition; however, closer inspection of the Liner and Moisture Barrier will reveal rips or tears that would not be obvious in a cursory examination. Even discoloration of the Moisture Barrier may be an indication that the garment is no longer able to provide the same level of protection as when it was new.

The bottom line, regardless of when the clothing was produced, is that the safety officer or authority having jurisdiction must routinely inspect protective clothing in order to assure that it is clean, maintained, and still safe. Just knowing the age of the garments cannot do that.