CWPA Proceedings, 2005, pp 30-31

FIRE RETARDING OF POWER POLES

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INTRODUCTION

Our company, Zero Combustion Ltd. holds the distribution rights for North America of a complete line of fire-retardants and fire stopping solutions, fit for any application. We have over thirty different products that are made under the trademark name HCA and comply with ISO standards. Today, I will be referring to two of these products, HCA Basic Powder and HCA WL and WL Exterior for use on transmission and distribution power lines.

METHODOLOGIES

1. **Spray processes for Transmission / Distribution lines** with reference to past success with BCTC during the Lillooet, B.C forest fire. (Followed by viewing of Hydro footage from Lillooet).

a) **Re-active approach**: Going in ahead of an active forest fire, crews clear impinging brush in a 20' diameter around the pole and spray left over grass. We then install a non-toxic fire-retardant and sealant named HCA Basic to the poles, using pump sprayers treating up to the 14' mark. This process provides a 3 year protection against weather and fire, the coating is intact as long as the pole repels water. This is an emergency type scenario which is acted upon in the event of a fire. Extra expenses for rescue personnel, helicopters and forestry must be considered and do become involved when working through an active fire.

b) **Pro-Active approach #1:** With no immediate threat of fire, to go in and install a water based latex paint product, HCA WL and HCA WL Topcoat Exterior. Crews use an airless sprayer which will protect up to the 14' mark. The base coat goes on first and is finished with the Topcoat. The Topcoat can be made any color for identification purposes and will provide "A" Class protection against fire and weather for 5-7 years, before having to re-apply the Topcoat. Re-application of the Topcoat is necessary to ensure ultimate protection for me future. The versatility of the HCA Paint line allows the product to be installed in areas that see extreme weather conditions and in places where ultimate protection is necessary. No extra costs for helicopters or emergency personnel would be necessary by choosing this method.

c) **Pro-Active approach #2:** Flameguard, our manufacturer has been working the past three years on what is called the "multi-wood project" using pressure treating techniques. Pressure impregnation and high heat fixation of this product allows for deep penetration which ensures the integrity of the pole. This product offers a non-toxic approach with a potential 25 year life span against fire and weather however Testing is still being performed.

2. **HCA WL for treatment on all electrical cables:** For use in or on transformers, switching stations, MCC panels, electrical cables or other areas labeled as potential "hotspots". The WL Paint can be installed by maintenance personnel and will provide excellent protection against dead shorts in wiring, which usually results in a fire that can cause chain reaction damage to the switching panels or sub-stations.

3. **Dry Sprinkler Powder Aerosol (or DSPA) extinguishers:** For fixed applications in MCC panels, switching stations or transformers that can be set off manually or autonomously with a photo eye, deadman's switch, or based on heat rise where installed. Unlike methods currently used, the DSPA is user friendly, non-toxic comes in an array of sizes for specific applications.