



## Safety Advisory

**Date:** July 22, 2015

**Subject:** Hardhat Cracking and Delamination

**Discussion/Background issue:** A wildland fire crew returned from an assignment in Alaska and discovered that 12 of their 25 FH911CR Bullard hardhats exhibited cracking and delamination in multiple areas of the outer portion of the hardhat. The hardhats were purchased in the fall of 2014, stored inside over the winter and placed into service spring 2015. The crew applied Cutter and Ultrathon brands of insect repellent during the assignment with a rated 20-60% of DEET (N,N-diethyl-meta-toluamide). The crew reported varying levels of application during the assignment ranging from frequent and complete coverage to limited discretionary application. Currently there is one other known report from Alaska of delamination or “flaking” of a hardhat within days after application of insect repellent (30% DEET).



**Required Action:** All helmets that exhibit cracking or delamination should be discarded or sent to MTDC.

**Recommended Action:** Do not use paints (unless approved in writing by Bullard), solvents chemicals (DEET), adhesives, gasoline or like substances on hard hats. The impact resistance and other protective properties of the hat may be destroyed by such substances. These dangerous conditions may not be apparent or readily detectable by the user. This helmet does not have an indefinite service life. Conditions found in many work environments, such as exposure to ultraviolet light, temperature extremes, chemical exposure, and wear and tear from daily use will reduce the protective properties of the helmet over time. Replacement Recommendations: Bullard recommends that the suspension be replaced every 12 months, and the hard hat shell be replaced every 2 - 5 years. **It is recommended to remind crews during briefings to avoid any chemical applications to hardhats.**

**Additional Information:** Past Notices, Tech Tips and MTDC research for hardhat maintenance identify the avoidance of chemical application on hardhats and may be found at the following links.

<http://www.fs.fed.us/t-d/pubs/htmlpubs/htm12512825/>

<http://www.fs.fed.us/t-d/pubs/htmlpubs/htm02672331/index.htm>

[http://www.nifc.gov/nicc/logistics/cachememo/CM2011-1\\_Hard\\_Hat.pdf](http://www.nifc.gov/nicc/logistics/cachememo/CM2011-1_Hard_Hat.pdf)