Upper Great Plains Transportation Institute - NDSU

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# HARD HAT SAFETY

Hard hats are one of the most important pieces of safety equipment and are worn daily by millions because of the protections they provide. However, it is rarely part of an inspection, maintenance, or replacement program but should be. Many workers may be wearing a hard hat well past its useful life without even knowing it.

The durable exterior of the rugged-looking hard hat can disguise the need for replacement. Hard hats must be replaced when they can no longer provide the protection intended, and sometimes this can be difficult to detect. Organizations requiring workers to wear head protection on the job should have a regular hard hat replacement program.

Hard hat life span may vary significantly based upon the conditions at each work site. Ultimately, an employer is responsible for defining a responsive and appropriate solution for hard hat service life issues.

### **USEFUL LIFE OF A HARD HAT**

As a general guideline, most manufacturers recommend replacing hard hats every five years, regardless of outward appearance. If work conditions include exposure to higher temperature extremes, sunlight, or chemicals, hard hats should be replaced after two years of use. Some manufacturers recommend replacing the hard hat every 12 months, regardless of appearance. Careful review of each work site is critical to ensure that degradation of Personal Protection Equipment (ppe) is not being accelerated due to extreme work conditions.

# INSPECTION AND MAINTENANCE

Shells should be inspected routinely for dents, cracks, gouges, and any damage due to impact, penetration, abrasions, rough treatments, or wear that might reduce the degree of protection originally provided. Degradation of thermoplastic material may be apparent when the shell becomes stiff, brittle, faded, dull in color, or exhibits a chalky appearance. Award hat should be replaced at first sign of any of these conditions.

Exposure to direct sunlight will affect the life of the shell

Although most manufacturers add an ultraviolet inhibitor to the shell material to protect against degradation caused by sunlight, all hard hats are susceptible to ultraviolet light damage. Workers should never store their hard hats in the rear window or dash of a vehicle or in direct sunlight. This is the quickest way to degrade the shell material and reduce the product's life.

Suspension Inspection

The hard hat suspension is just as important to worker safety as the shell. The suspension actually helps to absorb the shock of a blow, so it must be in good condition at all times. Like the shell, the suspension must be inspected regularly and replaced from time to time. Suspensions should be inspected closely for cracks, frayed or cut crown straps, torn headband or size adjustments lots, loss of pliability, missing components, or other signs of wear. These conditions can be caused by perspiration, hair oils, or normal wear.

### Maintenance

Hard hats will get dirty. The hat and suspension should be cleaned with mild soap and lukewarm water. Strong detergents, solvent chemicals, gasoline, and other like substances could affect the resistance and other properties of the hat over time. Contact the manufacturer if you have concerns.

# **GENERAL GUIDELINES**

All new employees should be provided with a new, unused, and unexposed hard hat. Avoid reissuing cleaned hard hats. The cost of a hard hat is negligible when the potential for injury, lost time, health care costs, and liability are considered. Hard hats are designed to protect you only once. If the hardhat has been struck by a forcible blow of any magnitude, both the hard hat shell and the suspension should be replaced immediately, even if no damage is visible. Hard hats also should be replaced if dropped accidentally by the worker from the height of a two story building or higher. Damage to the hat and suspension from the drop could seriously degrade the effectiveness of the product. Assuming the hard hat has been stored in proper packaging— free from exposure to sunlight, chemicals, and extreme temperatures— the product service life would begin at the time the hard hat is put into service, not from the date of manufacture.

Adapted from an article by the Bullard Company. (Users of Safety Talk are advised to determine the suitability of the information as it applies to local situations and work practices and its conformance with applicable laws and regulations).

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