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Holiday Lighting Safety Tips

(Excerpts from an article published in the IAEI magazine by [Joseph Wages, Jr.](#))

Holiday lighting has existed for centuries. Early lighting consisted of bringing in an evergreen tree and adorning it with candles. It did not take long for an open flame and a drying out tree to produce unfavorable results.

With the development and use of electricity came the desire to make things safer. Out went the unsafe candles and in came the strands of holiday lighting. Early versions of holiday lighting were seen annually during the Christian celebrations of the birth of Jesus. Millions of homes were decorated with various forms of holiday lighting strands and ornaments. Children were mesmerized by the beautiful lights and with the hopes that Santa would be visiting soon.

Unfortunately, there are people that take things a little too far. Who can forget the movie *Christmas Vacation* and Clark Griswold's obsession with having the brightest house on the block? Clark Griswold's installation had electrical inspectors cringing all over the world, but the local utility was happily benefiting from the use of more electricity.

The *NEC* addresses holiday lighting and limits the use of these products. One of the requirements is that holiday lighting shall be listed, in other words have a UL or similar tag on it. Another requirement limits the installation and use to 90 days.

Unfortunately, needless loss of life and property result from the use of these products. Every year there are news reports of families losing their homes or loved ones due to careless use of holiday lighting. Placement of these products on once live trees that have a tendency to dry out has resulted in many fires. Improper use of extension cords is another contributing factor. Again, revisiting the movie *Christmas Vacation* helps drive home this point. In this scene, a family member who is a careless smoker ignites the tree at their Christmas celebration.

Interestingly, nationally recognized testing laboratories such as Underwriters Laboratories (UL), conduct investigations on the flammability of some of these products. This author was fortunate enough to be able to witness one of these tests. The tests were conducted with two Christmas trees. One had a fire rating and the other did not. It does not take long for a once beautifully adorned tree to become a raging tower of inferno. Viewing this testing procedure drove home for me the simple point that things like this could become truly dangerous if not treated properly.

Additionally, here are safety tips from the Electrical Safety Foundation International (ESFI)

- Make sure all extension cords and electrical decorations used for outdoor decorating are marked for outdoor use.
- Match power needs (amperage) of electrical products with amperage rating of extension cords.

- Outdoor electric lights and decorations should be plugged into circuits protected by **ground fault circuit interrupters (GFCIs)**. If circuits are not GFCI-protected, portable outdoor GFCIs can be purchased where electrical supplies are sold and require no special knowledge or equipment to install.
- Inspect all lights, decorations, and extension cords for damage before using.
- Fasten outdoor lights securely to trees, the house, or other firm supports to protect them from wind damage, but take care not to attach the lights in a way that could damage the cord's insulation.
- Keep all extension cords and light strings clear of snow and standing water.
- Make sure spotlights used to illuminate decorations are well-ventilated, protected from weather, and a safe distance from flammable items.
- Inspect ladders for loose or missing screws, hinges, bolts, and nuts before using.
- Use wooden or fiberglass ladders when decorating outdoors. Metal ladders conduct electricity.
- Use the right ladder height, ensuring ladders extend at least three feet past the edge of the roof.
- Exercise caution when decorating near power lines. Keep yourself and your equipment at least 10 feet from power lines.
- Avoid overloading electrical outlets with too many decorations or electrical devices. They can overheat and cause a fire.
- Make sure that cords are not pinched in doors, windows, or under heavy furniture, which could damage the cord's insulation.
- Do not mount or support light strings in a way that might damage the cord's insulation.
- Always unplug electrical decorations before replacing bulbs or fuses.
- **Turn off all indoor and outdoor electrical decorations before leaving home or going to sleep**

The last thing anyone wants during the holiday season is for someone to be injured or to lose property to a fire. Following these guidelines can help to make this a safe and happy holiday!

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