Electrical Inspections: They don't need to shock you...

One thing most of us take for granted in our homes is that when we flip a switch, the lights come on. Idaho Power does an excellent job delivering clean, affordable electricity to our homes, but what about the electrical system inside our houses? This system is one of the core components of a safe and healthy living environment for our families. Having your home's electrical system inspected can provide peace of mind and ensure your family's safety.

An electrical inspection evaluates both the service and distribution panels, as well as the end-use outlets. These areas contain critical safeguards that should be inspected regularly. Two essential safety devices in modern homes are GFCI and AFCI circuits. GFCI stands for Ground Fault Circuit Interrupter, and AFCI stands for Arc Fault Circuit Interrupter. Each device serves a unique purpose, protecting against different hazards in different locations.

A ground fault occurs when current unintentionally "leaks" from a circuit and finds a path to the ground. If a person's body provides that path, it can result in burns, severe shocks, or even electrocution. GFCI devices detect leaks of as little as 4–6 milliamps and immediately trip the circuit to prevent harm. This level of protection is so sensitive that most people wouldn't even feel a shock before the GFCI activates.

AFCI devices, on the other hand, are designed to prevent fires caused by arcing faults, which occur when electricity jumps between damaged wires or connections. While GFCI devices protect people from electric shocks and some fire risks, they cannot detect the hazardous arcing faults that AFCI devices address.

The National Electrical Code (NEC) mandates GFCI protection in areas with high moisture exposure, such as outdoors, bathrooms, kitchens, garages, crawl spaces, and unfinished basements, as well as near swimming pools. AFCI protection is required for circuits supplying bedrooms, where fires could start unnoticed while occupants sleep. If your home was built before these safety measures became mandatory, it's strongly recommended to have a qualified electrician install them.

The second part of an electrical inspection focuses on the service and distribution panel, or breaker box. While newer homes often have modern protections, potential grounding issues can still arise. Older homes, in particular, should be inspected for wiring type and size. For example, aluminum wiring, common in some older houses, can pose serious safety risks. Additionally, older panels may contain circuit breakers that have been recalled or are no longer certified, requiring replacement by a licensed electrician.

In conclusion, while an electrical inspection may not seem urgent, it is vital for home safety. Electrical faults are the second leading cause of house fires in the U.S., behind cooking accidents, and account for thousands of injuries and fatalities annually. Ensuring your electrical system is upto-date and equipped with the proper safeguards provides the reassurance that your family is protected.

If you have questions about the inspection process or any other aspect of home construction or maintenance, feel free to reach out. We're here to help in any way we can!

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