CDMG Releases New Article Exploring How Metal Buildings Can Help Protect From EMP

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Pittsburgh, PA - CDMG, a leading engineering and construction management firm, recently released a new article titled, "What Is EMP? Will A Metal Building Protect From EMP?"

The article explores the topic of electromagnetic pulses (EMPs) and their potential impact on metal buildings. It provides a comprehensive overview of EMPs, including their causes, effects, and the advantages of metal buildings in shielding against them.

Tom Corry, a manager at CDMG, stated, "EMPs are a growing concern due to potential threats from nuclear explosions or solar flares. Our goal is to inform readers about the importance of EMP protection and the benefits of metal buildings in this regard."

The article discusses the various factors that can affect EMP shielding effectiveness, such as the structural integrity of the metal building and the presence of any conductive materials within the structure. It also provides practical tips for maximizing protection against EMPs.

"Metal buildings offer a significant advantage in terms of EMP shielding compared to other building materials," adds Corry. "By understanding the principles of EMP protection and following best practices, individuals and businesses can safeguard their valuable assets and ensure continuity of operations."

The article goes in detail explaining that an EMP is a wave of electromagnetic radiation, and that it can't hurt you directly, but that it interacts with power lines, metal, conductive materials, and electronics, causing power spikes. In large-scale events, an EMP can cause electronic systems failures, knocking out power and killing electronic equipment.

It also explains that EMPs can be caused by several things, but that the two most likely EMP threats are a nuclear explosion or a solar flare. The blog clarifies that depending on the power of the explosion, or the solar flare, that an EMP can damage important things like: telephone and mobile phones, vehicle and aircraft control systems, computers and all internet-connected devices, TVs, radios, and other broadcast equipment, power grid transformers and substations, refrigerators, generators, and satellites.

They specify that anything powered by electricity could be damaged by an EMP. The damage will vary with the size of the EMP and how close one is to the center of its energy.

The article also illustrates that the main difference between a solar and nuclear EMP is that nuclear EMPs are more energetic with shorter bursts. A solar flare EMP is also referred to as a Coronal Mass Ejection (CME) or a geomagnetic storm. Solar flares will vary widely in intensity, from bright northern lights to potentially destroying some or all of the power grid with smaller EMPs causing blackouts. Solar flares can last much longer than nuclear EMPs.

Subsequently, the article outlines that an enclosed metal structure is ideal protection against an EMP attack, whether it's nuclear or solar - as long as it doesn?t have leaks in the structure. It goes on to explain that even if a structure is 95% enclosed, it will still allow EMP radiation to get in. It suggests that the metal building structure be enclosed on all six sides, including the floor.

The piece clarifies that that fact tends to be the Achilles heel for stand-alone metal sheds that sit on the ground with no conductive material underneath to complete the closed circuit. EMP radiation that is strong enough will conduct through the top surfaces of the ground and can find its way in through the floor. Pouring concrete over well-grounded rebar can help give the protection one's metal building needs.

Those wanting to explore the other benefits of metal buildings can access the full article on CDMG?s website. The guide serves as a valuable resource for businesses looking to efficiently and effectively install a metal building structure.

CDMG continues to establish itself as a leader in industrial construction and engineering through its commitment to client education and innovative solutions. This latest article educating the public on EMP and how metal buildings can provide

For more information about CDMG's services or to access the full guide on how metal buildings can help protect against EMPs, visit the CDMG website or contact their team directly.

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CDMG Metal Buildings

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