



Committee on
HOMELAND SECURITY
Chairman Michael McCaul

Opening Statement

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**Statement of Vice-Chairman Scott Perry (R-PA)
Subcommittee on Cybersecurity, Infrastructure Protection, and Security Technologies
Committee on Homeland Security**

“Electromagnetic Pulse (EMP): Threat to Critical Infrastructure”

Remarks as Prepared

I would like to thank everyone for attending today. Chairman Meehan is unable to attend but as Vice Chairman of this Subcommittee, I am honored and pleased to chair this important hearing on the threat and consequences to our nation’s critical infrastructure from Electromagnetic Pulse (EMP).

In 1962 the US conducted a test named STARFISH PRIME, where the military detonated a 1.4 megaton thermonuclear bomb about 25 miles above Johnston Atoll in the Pacific. In space, six American, British and Soviet satellites suffered damage and eight hundred miles away in Hawaii, burglar alarms sounded, street lights blinked out, and phones, radios, and televisions went dead. While only 1% of the existing street lights were affected, it became clear that electromagnetic pulse, or EMP, could cause significant damage.

EMP is simply a burst of electromagnetic radiation that results from certain types of high energy explosions or from a suddenly fluctuating magnetic field. A frightening point is that EMP can be generated by nuclear weapons, from naturally-occurring sources such as solar storms, or specialized non-nuclear EMP weapons. Nuclear weapon EMPs are most catastrophic when a nuclear weapon is detonated at high altitude, at approximately 30 kilometers (20 miles), above the intended target. The consequences of such an attack could be catastrophic; all electronics, power systems, and information systems could be shut down. This could then cascade into interdependent infrastructures such as water, gas, and telecommunications. While we understand this is an extreme case, we must always be prepared in case a rouge state decides to utilize this technology.

Currently, the nations of Russia and China have the technology to launch an EMP attack, and we have speculated that Iran and North Korea may be developing EMP weapon technology. This is why we must remain vigilant in our efforts to mitigate the effects of an EMP attack. Since most critical

infrastructure, particularly electrical infrastructure, is in the hands of private owners, the federal government has limited authority to mandate preparedness. While some people criticize the lack of DHS action on compelling the private sector to harden their systems against EMP, it is important to note that DHS has no statutory authority whatsoever to regulate the electric grid.

My hope is that this hearing will be successful in educating the public on the threat of EMP and will alleviate some of the fears that people have on EMP attacks. I thank the witnesses for their time and look forward to their testimony.

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