ETS-LINDGREN DEFIES THE ODDS

More than plot twists in the latest espionage thriller, the danger is real. The EMP threat to disable or destroy Critical Infrastructure Systems with High Altitude Electromagnetic Pulse (HEMP) or Intentional Electromagnetic Interference (IEMI; high power radio frequency weapons) is not fictitious. While you may not be able to prevent an EMP event, you can control the outcome.

Defy the threat. Choose EMP Protection That Defies with ETS-Lindgren Red Edge™ Certified Systems and Components.

 Recognized the world over for our shielding and protection expertise, we’ve also been instrumental in the development of protection products and standards that have helped shape government policy. Our innovative new products and strategies defy the conventional, wait-and-see approach.
EMP Protection That Defies. It’s a bold claim to be sure and one that we make with complete confidence. That’s because only ETS-Lindgren provides an entire line of integrated EMP protection solutions that are backed by:

• **Proven Performance** – EMP protection that has been independently tested and certified by Little Mountain Test Facility at Hill Air Force Base in Ogden, Utah, the premier survivability and reliability High Altitude Electromagnetic Pulse (HEMP) testing center owned by the U.S. government and managed by Boeing.

• **Leading Expertise** – Undisputed leaders and innovators, including William A. Radasky, Ph.D., P.E., IEEE Life Fellow and chair of the International Electrotechnical Commission (IEC), internationally recognized for his knowledge of high-power electromagnetic effects to electrical equipment and the development of mitigation methods that protect facilities from these threats.

• **Unmatched Experience** – More than 30 years experience as an innovator of systems and components for the detection, measurement and management of electromagnetic, magnetic and acoustic energy.

• **Capabilities to Any Scale** – In-house certified Building Information Modeling (BIM) capabilities, critical to the planning, designing and constructing of buildings and infrastructures, along with cost-effective, well-managed project execution.

• **Global Reach** – Internationally recognized as the preeminent provider of integrated EMP solutions with manufacturing facilities and sales offices around the world.
Typical security protection measures are no longer enough to keep critical assets, infrastructures or systems safe from HEMP or IEMI. As ETS-Lindgren continues to set the standard for shielded protection, we are already working with clients in many of these Critical Infrastructure Sectors, as defined by the Department of Homeland Security, which include:

- Energy (Electricity, Petroleum and Natural Gas)
- Defense Industrial Base
- Communications
- Healthcare and Public Health
- Emergency Services
- Water and Wastewater Systems
- Transportation Systems
- Food and Agriculture
- Information Technology
- Financial Services
- Nuclear Reactors, Materials and Waste
- Chemical
- Commercial Facilities
- Critical Manufacturing
- Dams
- Government Facilities
PRODUCTS AND SOLUTIONS

INTEGRATED EMP SOLUTIONS THAT DEFY THE THREATS
Whether you need to mitigate externally radiated pulses in free space, block conducted EMP from entering via wiring and cabling or ensure continuous operation, ETS-Lindgren’s fully integrated EMP solutions provide protection for government and commercial applications.

MODULAR WALL PANEL SYSTEMS
Depending on your requirements, ETS-Lindgren offers a choice of shielded rooms crafted with welded steel construction, modular double layer steel clad wood panels or single layer steel pan-type shielding. Choose from various interior or exterior finishes.

SHIELDED EQUIPMENT ENCLOSURES
Our TEMPEST Information Processing Systems (TIPS) ensure shield protection for high-value, rack-mounted equipment.

SHIELDED DOORS
Select from several shielded door options that provide a fail-safe performance of up to 120 dB and continue to maintain shield integrity even after repeated use.

POINTS OF ENTRY
Every point of entry for air, water, fire suppression, signal or power lines offers the potential to degrade the integrity of a shielded room or chamber. ETS-Lindgren specially designed waveguides, pipe penetrations, fiber optic feedthroughs, and signal and data filters prevent the entry or escape of electromagnetic signals.

FILTERS
Available in either two or four individually filtered lines, with ratings of 277/480 VAC, 10 A to 1200 A, ETS-Lindgren’s EMP/HEMP power line filters offer excellent multi-stage, over-voltage and EMI/RFI protection. (For service entry ampacity greater than 1200 A, filters can be wired in parallel.)

RED EDGE PULSE PROTECTION
Red Edge Pulse Protection is your first line of defense – delivering two levels of protection. Red Edge Level 1 protects equipment and potential points of entry with rock-solid impenetrable enclosures, doors, filters, ports, vents and piping. Red Edge Level 2 ensures continuous data operations with a fully independent and uninterrupted power and utility source – located inside your suite or outside the existing facility.
EMP LEGISLATION

ETS-Lindgren’s reputation for expertise and innovation has been integral to the understanding of EMP and its risk to business, government and society. Our experts have been invited to share their knowledge with national government leaders in an effort to shape the standards vital to national defense and critical infrastructure.

We are proud of our role in educating lawmakers about this topic and in our ability to provide solutions that ensure the highest degree of protection as part of the Critical Infrastructure Protection Act (CIPA). The key wording included in the CIPA was later added to the 2017 National Defense Authorization Act resulting in a comprehensive document to address the threat of EMP. The 2018 National Defense Authorization Act (NDAA) was signed into law by U.S. President Donald Trump in December 2017.

GOVERNMENT REACTION TO POTENTIAL THREATS

Critical Infrastructure Protection Act (CIPA)/National Defense Authorization Act

MAY 2015
Mike Caruso of ETS-Lindgren testifies before US Congress CIPA Hearing that EMP protection is available, cost effective and several businesses have voluntarily already implemented this protection.

MAY 2015

JUNE 2015
US Committee on Homeland Security passes the CIPA; the bill moves from the US House to the US Senate. CIPA amends the Homeland Security Act of 2002 requiring the DHS to include the threat of EMP.

NOVEMBER 2015
The FBI supports the Divest Act which protects the Electric Grid. This protection of the Electric Grid from terrorism, GMD, HEMP and EMP is included as part of the energy bill that passed in Congress.

NOVEMBER 2015
In an official ceremony, President Obama signs the National Space Weather Strategy and the National Space Weather Plan that addresses Geomagnetic Disturbance (GMD).

NOVEMBER 2015
The US Government EMP Commission of 2001-2007 is recommissioned under the Defense Appropriation Bill that was signed into law in November 2015.

DECEMBER 2015
The NDAA, which includes “EMP and GMD Planning, Research and Development, and Protection and Preparedness*”, was signed into law by US President Barack Obama.

DECEMBER 2016
The NDAA, which includes funding for the reauthorization of the EMP Commission. It also includes section 1257 which specifically addresses the EMP threat from North Korea.

DECEMBER 2016
The NDAA for 2018 was signed into law by US President Donald Trump, which includes funding for the reauthorization of the EMP Commission. It also includes section 1257 which specifically addresses the EMP threat from North Korea.

* Department of Homeland Security
DEFY THE RISKS WITH ETS-LINDGREN
EMP SOLUTIONS

Protecting the safety, security and availability of critical infrastructure and data assets is no longer an exercise in operational recovery during a once-a-year practice simulation. The threats are real, making on-going protection imperative.

With ETS-Lindgren, you gain EMP Protection That Defies.

For more than 30 years, we’ve continued to provide proven, comprehensive and scientifically sound solutions for protecting systems and data from the destructive effects of EMP events. In virtually every industry and sector, ETS-Lindgren is recognized for our leading expertise and innovation – in our solutions and in the products and people that make them possible.

We not only have the resources and experience to meet the 2018 National Defense Authorization Act, our people are frequently called upon to be advisors to the experts, lawmakers and others who are concerned about how to protect their critical assets and infrastructures in the face of this destructive and disruptive threat.

To find out more, contact ETS-Lindgren or visit us online at ets-lindgren.com.
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