Subject: SMRP Comments on Emerging Cyber Threats to the United States

Dear Chairman Ratcliffe and Ranking Member Richmond,

I am writing to provide comments on emerging cyber threats to the United States. The Society for Maintenance & Reliability Professionals (SMRP) applauds the U.S. House Committee on Homeland Security’s decision to hold a congressional hearing within its Subcommittee on Cybersecurity, Infrastructure Protection, and Security Technologies. The maintenance and reliability of cybersecurity systems and critical infrastructure is essential to the security of our nation. Please accept these comments as part of the official record of the subcommittee hearing.

I. SMRP Introduction and Background

SMRP is a professional society formed in 1992 to develop and promote excellence in the maintenance, reliability, and physical asset management profession. SMRP members consist of engineers, operations managers, repair and reliability technicians, worksite and project planners, and other service providers. SMRP members are experts in specification, design, purchasing, installation, inspection, testing, maintaining, decommissioning, and asset disposal.

Maintenance and reliability jobs are skilled positions that provide competitive advantages to the companies that have them. Companies with highly trained, certified engineers reap a variety of benefits, including lower operations and manufacturing costs, reduced onsite injury risks, reduced environmental risks, and increased net profits. Nearly every industry sector requires the services of maintenance, reliability, and physical asset management personnel, including energy, oil and gas, pharmaceuticals, automotive, government and military, petrochemical, education, and commercial. Our ranks are made up of senior reliability managers from such companies as Cargill, BP, General Electric, General Motors, as well as utilities, government facilities, and the organizations that support them.
II. Maintenance & Reliability Certifications

Certified Maintenance & Reliability Professional
With over 4,800 accredited professionals certified by SMRP, the Certified Maintenance & Reliability Professional program is the leading credentialing program for verifying the knowledge, skills, and abilities of maintenance and reliability professionals, regardless of education background or work experience. Examining more than just textbook information, the Certified Maintenance & Reliability Professional examination is a thorough assessment of a broader scope of expertise measured against a universal standard. A foundational belief in developing this examination is that professionals in the maintenance and reliability profession learn critical knowledge, skills, and abilities from a variety of sources, both on the job and from outside training.

The Certified Maintenance & Reliability Professional is accredited by the American National Standards Institute (ANSI), which follows International Organization for Standardization (ISO) standards for its accreditation and processes. It was developed to assess professionals' aptitude within the five pillars of the Maintenance and Reliability Body of Knowledge: business management, equipment reliability, manufacturing process reliability, organization and leadership, and work management.

Certified Maintenance & Reliability Technician
The Certified Maintenance & Reliability Technician program is the leading credentialing program for the knowledge, skills, and abilities of maintenance and reliability technicians, regardless of education background or work experience. Earning the Certified Maintenance & Reliability Technician credential indicates that you have achieved a level of ability consistent with the requirements for competence on the job as a multi-skilled maintenance and reliability technician, recognized across all industries in the manufacturing world. A foundational belief in developing this examination is that technicians in the maintenance and reliability profession learn critical knowledge, skills, and abilities from a variety of sources, both on the job and from outside training.

The certification assesses the knowledge and skills of those responsible for preventative, predictive, and corrective maintenance, who are multi-skilled individuals with a critical role in the success of organizations worldwide. The Certified Maintenance & Reliability Technician exam tests competency and knowledge of specific tasks within four domains: maintenance practices, preventative and predictive maintenance, troubleshooting and analysis, and corrective maintenance.

III. Cyber Attack at Target Stores

On November 15, 2013, a complex cyber-attack was conducted on Target stores through credentials obtained from a third party HVAC service company. Once cyber-criminals acquired access to a beachhead in their contractor billing, contract submission, and project management system, they were able to use information provided via the portal to access Target’s credit card terminals. Over the next month, the cyber-criminals were able to access over 110 million consumer credit cards.
IV. SMRP Cybersecurity Positions and Recommendations

While a focus on the larger organizations is important for a last line of defense, preventing cyber-attacks on small and medium organizations that service the larger organizations and critical infrastructure should be a primary line of defense. It is SMRP’s belief that an understanding of the threats through contractors and subcontractors, regardless of size, and the development of cyber-defense processes will further reduce the risk to the economy and infrastructure of the United States and our allies.

SMRP recommends research into the potential threat through the first line of defense and the inter-connectivity between companies, vendors, contractors, and subcontractors with a goal to establish a cyber-defense strategy. This includes the evaluation of cyber-information and cyber-physical systems as well as best methods to prevent infiltration and damage to the front-line organizations. This will have the additional impact of improving the security of small business while reducing the number of attacks on larger organizations as current business models by all organizations includes contracting services.

V. Summary and Recommendations

The maintenance and reliability of cybersecurity systems and critical infrastructure is essential to the security of our nation. We need to better understand the threats posed through contractors and subcontractors in order to truly reduce the risk to the economy and infrastructure. SMRP recommends research into the potential threat through the first line of defense and the inter-connectivity between companies, vendors, contractors, and subcontractors with a goal to establish a cyber-defense strategy.

Thank you for your consideration and please do not hesitate to contact me if you have any questions.

Sincerely,

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Cc:
The Honorable Michael McCaul
Chairman, U.S. House Committee on Homeland Security

The Honorable Bennie Thompson
Ranking Member, U.S. House Committee on Homeland Security