

National Security or National Economic Security Designations for Multi-Sector Critical Infrastructure Industrial Zones

Introduction

Today there is no specific U.S. national security or national economic security designations exclusively for multi-sector integrated critical infrastructure industrial zones like those found along the 52-miles of the Houston Ship Channel or other similar industrial zones around the country.

Nevertheless, the United States and the Department of Homeland Security (DHS) has recognized the importance of protecting critical infrastructures, including industrial zones and transportation hubs like the Houston Ship Channel. The DHS plays a significant role in overseeing the protection of critical infrastructures in the country. It operates under the National Infrastructure Protection Plan (NIPP), which outlines a comprehensive risk management framework to safeguard critical infrastructures from both physical and cyber threats.

Under the NIPP, critical infrastructure sectors, including energy, which includes refineries, transportation systems, and others, are identified and designated as "critical" due to their essential role in national security, economic stability, and public safety. These sectors are given priority in terms of security and protection efforts. For example, over 90% of the domestic jet fuel, including that for military purposes, is refined in and around the Houston Ship Channel.

Issue

It is also worth mentioning that the U.S. Coast Guard, a part of the Department of Homeland Security, is responsible for the security and safety of the Houston Ship Channel. They work closely with other federal, state, and local agencies to ensure the protection of this critical transportation hub, but energy is a different matter.

During the Freeze of January 2021, rolling blackouts were implemented around the state by Texas energy regulators, which also impacted the 52-miles of the Houston Ship Channel. Fortunately, the blackouts were halted, and further calamities were averted. Within the 54 miles also reside 3 major public and private seaports that are also impacted.

Cutting power to these refineries is not only dangerous to their critical systems, but would also halt the refining of jet fuel for both military and commercial use.

Solution

National security risks involve international threats, such as cyber criminals and violent non-state extremists; as well as the domestic threats posed by hazardous material releases and natural disasters, such as the 2021 Texas Freeze. Threats can be also classified into four different categories; direct, indirect, veiled, conditional and there are 7 agreed to elements of national security; Military security, Political security, Economic security, Environmental security, *Security*

of energy and natural resources, and Cybersecurity. To be truly secure, the nation and the states need other forms of security administered by the Department of Homeland Security and the National Security Council, providing policy direction to the National Industrial Security Program (NISP).

One of the key national security issues for the industrial sector in the United States is the threat of energy disruptions cyber-attacks, economic espionage and other stresses brought on by aging energy infrastructures. As technology becomes more interconnected and advanced, the industrial sector increasingly relies on digital systems, data networks, and automation processes to enhance productivity and efficiency. However, this reliance on technology also exposes the sector to potential energy threats from both domestic and foreign actors.

Energy attacks and disruptions on the industrial sector can result in significant stoppages to critical infrastructure, including power grids, transportation systems, i.e., ports, and manufacturing facilities. These attacks can lead to financial losses, operational disruptions, and compromised supply chains, impacting national security and economic stability. State-sponsored hacking groups and cybercriminal organizations often target the industrial sector to steal intellectual property, trade secrets, and sensitive data, which can provide competitive advantages to foreign competitors or be used for malicious purposes.

Another national security concern for the industrial sector is the protection of critical technologies and defense-related industries. The United States has several strategic industries that are vital for national defense, such as aerospace, defense manufacturing, including refining and petrochemical manufacturing, and advanced electronics. The theft or compromise of sensitive technologies in these sectors can weaken the country's military capabilities and compromise its overall security, especially when you don't have jet fuel. Protection of these industrial zones has become acute in all their different aspects, especially energy.

To address these national security issues, the U.S. government and industrial sector organizations collaborate on initiatives such as information sharing, cybersecurity standards, and regulations and now must include ensuring the industrial areas in refining and other industrial supply streams stay secure. The government also works closely with private sector companies to improve resilience, enhance energy measures, and develop strategies to mitigate the risks associated with energy failures. This type of DHS oversight is what is required.

Without a stable energy supply, health and welfare are threatened and the U.S. economy cannot function. Presidential Policy Directive 21 identifies the Energy Sector as uniquely critical because it provides an “enabling function” across all critical infrastructure sectors. The U.S. energy infrastructure fuels the economy of the 21st century. More than 80 percent of the country's energy infrastructure is owned by the private sector, supplying fuels to the transportation industry, electricity to households and businesses, and other sources of energy that are integral to growth and production across the nation.

Other upsides to power options for industrial zones are environmental concerns are vast depending on the processes being effected. Managing these outages in the proper safe methods prevents unwanted emissions. The technologies being applied not only makes the industrial grid more

resilient and reliable but more environmentally friendly as new power sources can be used in energizing microgrid options.

Conclusion

Because of natural disasters and intentional man-made attacks, private and public groups around the country, recognize that there is not a coordinated approach for protecting multi-sector integrated critical infrastructure industrial zones like those found along Houston Ship Channel or other similar industrial zones around the country. The lack of a coordinated critical infrastructure protection plan for industrial zone along the Houston Ship Channel puts our Nation's security at a risk of a preventable significant event. The designation of the Channel as a National Security Issue is imperative to keep power flowing to critical infrastructure.

For more information please call 713-650-8004.