



Extraordinary and Increasing Threats to Energy Infrastructure: A fresh Look at Industry and Government Response

- **American Fuel and Petrochemical Manufacturers (AFPM)**
 - AFPM is a trade association that represents 98% of the refining capacity of virtually the entire U.S. supply of gasoline, diesel, jet fuel, other fuels and home heating oil, as well as the petrochemicals used as building blocks for thousands of vital products in daily life.
 - 39 refining companies—122 refineries
 - 400 (approx) members---refiners, petchem, international and associates

American Fuel and Petrochemical Manufacturers (AFPM)



- Member of both the Oil and Natural Gas (ONG) and Chemical Sector Security Councils
- Security Committee and Cyber Security Subcommittee
- Work with DOE, USCG, DHS, FBI, NIST, API, and ACC
- Members subject to both MTSA and CFATs
- Annual Security Conference
- Regularly comment/work with DOE, DHS & USCG on regulations, outreach, and voluntary programs

AFPM



- Threats to Refineries:
 - Hurricanes
 - Cyber
 - International events (Middle East issues)
 - Supply Chain disruption



Hurricane Issues

- Employees
- Electricity
- Access
 - Not utility bucket trucks, white pick ups
 - Early access needed to assess damage
- Supply chain disruption
 - Port closures
 - Road & Rail
 - Pipelines down

Cyber Threats & Challenges



- **Threats:**

- Real, Now, and Constant
- Attacks on pipelines, manufacturing, sales and contracts
- Many different adversaries
 - Insider threats
- SCADA threat

- **Challenges:**

- Connecting physical and cyber
- Liability
- Information sharing
- Can't stop stupid

AFPM & Cyber Security



- Cyber security committee very active--- manufacturing and associate (contractor) members
- Industrial Control Systems Joint Working Group (ICSJWG)
- Chemical Cyber Security Roadmap
- Members working with DOE on maturity models
- NIST cyber security standards development process under the Cyber Security E.O.
- Support development of an Information Sharing Advisory Committee (ISAC)



Hurricanes & Trade Associations

- Trades traditionally field questions from both government and members during a hurricane
- AFPM receives situation reports from DOE, DHS, and USCG
- AFPM participates in DHS sector calls
- Members may ask for help/information from DOE or DHS (PSAs)
- Trades can connect government agencies to contacts in companies
- Trades can collect general data
- Trades **cannot** obtain specific data

AFPM & Hurricanes



AFPM

- AFPM currently working with and supporting API to streamline and emphasize communication process with industry
- Support API in development of the “Oil & Natural gas Industry Preparedness Handbook”
- On Chem Sector workgroup developing “Playbook for All-Hazards Chemical Sector Response”
- AFPM developed hurricane plan template for member use
- AFPM participates in numerous Agency hurricane exercises and calls
- Hurricane help information links on website

Still Work to be Done...



Shared situational awareness

Critical for all for both hurricanes and cyber (pipelines, petroleum marketers, terminals, refiners, offshore)

- **Hurricanes:**
- AFPM supports:
 - DOE Energy Restoration Organization/new Ops Center
 - Industry liaison in Ops Center should help with getting the right data
 - DOE having preseason and pre-storm meetings and calls
 - Biggest issues: electricity, access, and supply chain
- **Cyber:**
 - Constant threat
 - ISACs may help with quicker sharing of threat information between companies and government



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