## ISSUE BRIEF: SAFETY & PREPAREDNESS

The severe weather unleashed by Hurricanes Harvey and Irma did not catch the fuel and petrochemical industries flat-footed. Far in advance of the storms, AFPM member companies along the Gulf Coast — which is home to a much of the U.S. fuel and petrochemical manufacturing base — had been working with government agencies and local first responders to develop thorough preparedness plans; routinely running employees and facilities through drills so they are ready for unexpected events; and participating in simulations or drills run by DHS, DOE, the U.S. Coast Guard, PHMSA, DOT and FEMA, as well as state and local regulators.

In all preparedness plans, the most critical consideration is safety — of people and communities, the environment, and facilities. When preparedness plans were activated around Harvey, refineries and petrochemical facilities began the process of slowing production or shutting down, which can take several days and is done carefully by highly trained individuals.

No one is more concerned about safety and preparedness than these employees who spend eight to 12 hours on-site each work day alongside friends and neighbors, and have a personal stake in ensuring everyone goes home safely. Employees are key to the industries' culture of safety.

All AFPM members abide by EPA's Risk Management Program (RMP) rule and OSHA's Process Safety Management (PSM), which they use as a foundation for their safety management programs — programs that go beyond these requirements to facilitate a strong safety culture of continuous improvement, and can include:

- Site safety committees developing and managing innovative site-specific programs to reinforce the safety culture;
- Using advanced technology to inspect equipment and perform preventative maintenance to ensure the integrity of equipment;
- Companies investing in their workforce to ensure that they are properly trained and that programs and procedures are in place so they can perform their work efficiently and safely; and
- Companies collaborating to develop industries standards that ensure all companies are inspecting, maintaining and running their equipment safely (which is a requirement under RMP and PSM).

AFPM members are united in this culture of continuous improvement. They invest heavily in preventative measures and regularly update process hazard analyses and other risk assessments to apply learnings from previous weather events — including Hurricanes Katrina and Rita — to their facilities. This has resulted in facilities adding additional redundant power supplies and raising electrical and other equipment, which better prepared them for unprecedented flooding that occurred with Hurricane Harvey. Advances in technology allowed more timely and improved communication between members of our industries, government agencies, members of the public, employees and other critical stakeholders, resulting in more efficient coordination and communication so that we can identify and mitigate issues together and safely operationalize at the appropriate time.

During Hurricanes Harvey and Irma, AFPM members coordinated directly with other critical players in the nation's complex fuel infrastructure system — including ports, terminals and pipelines — to bring operations back online as soon as possible, once the integrity of our facilities had been thoroughly assessed.

In addition to ensuring the wellbeing of people and the environment, a primary indicator of the effectiveness of our industries' preparedness is that just weeks after Hurricane Harvey made landfall, 20 of the 24 refineries



that had shut down had restarted, and 70 percent of the impacted petrochemical production was back up and running.

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