

Energy Secretary Visits General Atomics

Perry reviews DOE-supported advanced nuclear fission, fusion and HED physics programs

San Diego, CA – July 18, 2018: Since taking office, Secretary of Energy Rick Perry has championed his department's critical role in supporting scientific research, nuclear security, and the future of the U.S. energy sector. Perry got an up-close look at how Department of Energy (DOE)-funded programs interact with private industry to address those challenges on a visit to General Atomics (GA) Wednesday.

The secretary began the day with a visit to the facility where GA is developing accident tolerant fuel (ATF) rod cladding for current nuclear reactors as part of DOE's ATF initiative. Manufactured from an advanced silicon-carbide composite known as SiGATM, GA's ATF cladding can withstand far higher temperatures than current metal designs. This will help extend the life of current reactors by reducing operating costs and significantly reducing the risk of core damage from loss-of-coolant accidents, while also paving the way for advanced reactors that can greatly exceed the capabilities of the current fleet.

Perry then visited DIII-D, which has been operated by GA for DOE since the 1980s. DIII-D – the largest magnetic fusion research facility in the U.S. – is a world-class user facility capable of carrying out a wide range of fusion experiments. DIII-D hosts collaborators from more than 100 institutions worldwide, including seven DOE national laboratories. The magnetic fusion program at GA has led to vital scientific discoveries and spinoff technologies that have advanced the state of the art in a wide variety of fields.

After DIII-D, Perry toured the laboratories where GA manufactures precision targets and other components for the National Nuclear Security Administration's Inertial Confinement Fusion (ICF) program. GA supplies nearly 90% of the ICF targets used by the NNSA and university scientists studying the extreme conditions of high-energy-density that occur in nuclear weapons and stellar interiors.

"General Atomics has maintained a valuable and productive partnership with the DOE and its predecessor agencies on a wide variety of research for our entire existence," Jeffrey Quintenz, Senior Vice President of General Atomics' Energy Group said. "We are very proud to give Secretary Perry a first-hand look at the work we are doing for the Department, to provide the opportunity to meet some of our dedicated scientists and engineers, and to describe some of the important advances we expect over the next decade."

Finally, Perry visited GA's Magnet Technologies Center in Poway, where the company is fabricating the Central Solenoid (CS) for the ITER fusion reactor under construction in France. The CS is the heart of ITER, and the 5-story, 1,000-ton magnet will drive 15 million amperes of electrical current to stabilize the fusion plasma. The completed CS will power ITER in its quest to prove that nuclear fusion – the process that powers the stars – can provide virtually limitless safe, clean and renewable energy for the world.

About General Atomics: General Atomics pioneers advanced technologies with world-changing potential. GA has been at the cutting edge of energy innovation since the dawn of the atomic age – for more than 60 years. With scientists and engineers continually advancing the frontier of scientific discovery, GA is serving our growing planet's needs through safe, sustainable, and economical solutions across a comprehensive array of key energy technologies.

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