

**TESTIMONY OF**  
**WILLIAM J. FALLON**  
**ADMIRAL, U.S. NAVY (RETIRED)**

---

**U.S. House of Representatives**  
**Committee on Science, Space, and Technology**  
**Subcommittee on Energy**

**Field Hearing on**  
**How the Domestic Nuclear Industry Boosts Local**  
**Economies, Curbs Emissions, and Strengthens**  
**National Security**

**May 3, 2019**  
**Shippingport, Pennsylvania**

Committee Chairwoman Johnson, Subcommittee Chairman Lamb, Ranking Member Weber. Good morning. It is a pleasure to be here in Pennsylvania to testify about this important topic of commercial nuclear energy and the relationship to national security.

It is fitting that the hearing is taking place here in Shippingport, the site of the first commercial reactor in the world dedicated to peaceful use, generating electricity for citizens in this vicinity.

It was my honor to serve on active duty in the United States Navy for more than 40 years. There has been, and continues to be, a very close and interesting historical relationship between the U.S. Navy and the commercial nuclear power industry in this country.

The first nuclear powered vessel in the Navy, the submarine USS Nautilus was commissioned in 1955. President Dwight Eisenhower opened the Shippingport power plant in 1958. The reactors of both of these power plants were essentially the same and construction of both was overseen by the same person, then Captain, later Admiral, Hyman G. Rickover, U.S. Navy.

Since those early days of nuclear power, the Navy and the U.S. commercial industry have operated with many close connections and dependencies. Today, of the approximately U.S. 200 nuclear power plants in operation, half are in the Navy, most powering submarines and aircraft carriers. The Navy and the civil power sector share the same industrial base, supply chain and talent pool.

Nuclear power has been intrinsically tied with U.S. government interests and national security since it was first brought on line in the 1950s. But in recent years, a steady decline in the commercial nuclear energy sector threatens to undermine national security by diminishing our ability to exert geopolitical influence.

Today, particularly in strategic locations around the world (Middle East, Africa and Southeast Asia), competing powers Russia and China have aggressively moved to fill the void created by a diminished U.S. nuclear presence. The contraction of civil nuclear power has resulted in U.S. ceding world-wide nuclear leadership, eroding the industrial base for our Naval Nuclear Propulsion Program and diminishing the ability to fuel our ships (as we currently have no domestic fuel manufacturing capability).

Commercial nuclear power and the U.S. government share a long history that is intertwined with the global struggle for peace and democracy. In December of 1953, President Eisenhower presented a bold proposal to the United Nations: the U.S. would share its nuclear energy technology with other nations if the receiving nation committed not to use the technology to develop nuclear weapons. This program, known as "Atoms for Peace", had three important national security objectives:

- To prevent the spread of nuclear weapons

- Establishing the U.S. as the leader in nuclear power, thereby enshrining U.S. nuclear safety and security standards, nuclear technology development and nuclear trade

- Ensuring that the U.S. (and not Russia) benefitted from the geopolitical relationship that goes with such significant assistance with a foreign country's power supply

For decades, the U.S. led in nuclear power generation, with safety and security leadership at home and abroad. Regrettably, the U.S. no longer leads, as Russia and China now dominate nuclear power plant construction around the world, using it as a tool to exert foreign influence and achieve economic gain.

Russia today has a \$130B book order for new foreign reactors. The U.S. has zero.

Russia and China, as a part of its Belt and Road initiative, have made it a priority to sell nuclear reactors abroad, increasing their spheres of influence and the energy dependence of host nations. And it is a highly profitable trade.

The struggling nuclear power industry in the U.S., now directly competing against foreign governments which heavily subsidize for new projects abroad, has been sidelined on the international stage.

The U.S. civil nuclear power program, launched simultaneously with the Naval Nuclear Power Program, with Admiral Rickover overseeing both, remain closely connected. But our Navy's technological readiness, fuel and strong talent pool are threatened by the decline in the commercial nuclear power industry.

Without staying ahead of technological advances, the Naval Nuclear Propulsion Program risks falling behind faster, stealthier and more powerful submarine and aircraft carrier designs from Russia and China. While the U.S. still leads in advanced nuclear reactor technology innovation, the technologies will die on the vine without commercial customers, and the Navy will not benefit from these technological advances to update the reactors in its fleet.

As recently as 2013, the U.S. had 104 operating nuclear power plants. Today there are 98 and about 1/3 of them are uneconomic and at risk of premature shutdown. Nuclear power provides immense amounts of carbon free, base load power. However, market pressures brought by abundant natural gas and subsidized wind and solar power, are increasingly driving out nuclear energy in our country. Several expert views suggest that all U.S. commercial nuclear plants are at risk of shutdown within the next 20 years.

With the demise of civil nuclear power, we will see decline in much of the infrastructure that is also critical to Naval Nuclear Propulsion. The decline of university programs, supply chain, a highly skilled and experienced workforce, and strategic thought leadership in nuclear energy are pushing the U.S. into total irrelevancy at a time when Russia and China are dominating the global market place. And the U.S. ability to influence non-proliferation standards and global safety standards is becoming mute.

In my view, U.S. government leadership, particularly by the Congress and by the Executive branch, is necessary to act to preserve our national security interests.

Thank you for the opportunity to appear before you.