



**State Representative Dick Stein
57th House District**

**November 27, 2018
House Energy and Natural Resources Committee
Sponsor Testimony—House Resolution 518**

Chairman Landis, Vice Chair Hagan, Ranking Member O'Brien, and members of the House Energy and Natural Resources committee, thank you for giving me this opportunity. House Resolution 518 speaks to the urgent need for the United States to develop advanced nuclear technologies. This resolution expands on efforts made by my predecessor Terry Boose in House Concurrent Resolution 9 of the 131st general assembly; which asked the Nuclear Regulatory Commission (NRC) to adequately fund the licensing of new reactor designs and promote research in academic institutions. Due to a general unwillingness over the last 50 years for the Nuclear Regulatory Commission to look into advanced nuclear reactors, HR518 hereby petitions the US. Dept. of Energy, under its authority, to promulgate rules and establish programs for the development of prototype reactors in Ohio.

The 1946 Atomic Energy Act ruled that nuclear weapons development and nuclear power management would be under civilian control and established the US Atomic Energy Commission. In February 1954, three weeks after the launch of America's first nuclear powered submarine, the "Nautilus"; President Eisenhower gave a speech in support of updating language in the 1954 Atomic Energy Act (AEA). This Act remains the foundation of the laws that govern civilian nuclear power. In Eisenhower's special message to Congress, he noted that the 1946 law was outdated and that for atomic energy to flourish and benefit man, the federal government must no longer be allowed to have a monopoly on the technology. The 1954 Atomic Energy Act and Eisenhower's speech sought to recognize the tremendous potential benefits of nuclear technology and to encourage widespread participation with our allies and American industry. Today, many companies are interested in developing 4th generation nuclear reactors.

Between 1954 and 1976, the Atomic Energy Commission was authorized with the protection and promotion powers over technologies include in the Act. Inarguably, the AEC did a great job overseeing the expansion of the new atomic energy industry until it was phased out of existence in 1976. Pressures from Congress split the AEC into the Nuclear Regulatory Commission and the US Dept. of Energy. Since the split and the formation of the DOE, it has become cost-prohibitive for any private entity to do much research and development in the nuclear arena. To further add to the R&D monopoly barriers, the 1990 Omnibus Reconciliation Act made the NRC a cost recovery agency—meaning the first movers of a new type of reactor technology must foot the bill to develop the regulations for the entire industry; including their competition.

Ohio has a storied history with the research and development of nuclear technologies. The Monsanto Corporation and Mound Laboratory in Miamisburg, OH served an integral part of the historic Manhattan Project, but they also pioneered the field of utilizing isotopes for the benefit of man. The Piketon Enrichment Facility outside of Portsmouth, OH produced enriched uranium to supply America's needs. The Battelle research reactor in West Jefferson, OH was instrumental in developing submarine propulsion, fuel reprocessing, and the safe use of reactor vessels and piping in submarines. Wright Patterson AFB's research reactor performed testing on materials that were to be used for nuclear powered aircraft. NASA's Plum Brook reactor was originally purposed for materials testing for nuclear powered aircraft then was repurposed to aid in developing nuclear powered space propulsion. Piqua, OH was home the nation's only organically-cooled nuclear municipal demonstration reactor. Ohio State University has its own research reactor. And of course, we have two commercial scale reactors; Davis-Besse Nuclear Power Plant and Perry Nuclear Power plant. With the exceptions of our two commercial nuclear reactors and Ohio State University's research reactor all of Ohio's nuclear research and development facilities created under the Atomic Energy Commission are now either defunct or grossly under-utilized by the DOE.

Innovation and investment translate into opportunity, industry, and jobs. Ohio has the nuclear engineering and materials manufacturing base to support development of these technologies and ranks #2 in the America's nuclear supply chain. By petitioning the Dept. of Energy we say to the entire world that the State of Ohio has an interest in developing new nuclear technologies. This rulemaking petition asks the DOE to promulgate rules for

collaborative research and develop efforts with the DOE under the guidance and regulation of the DOE at joint DOE/STATE facilities. It is hard to believe through the spectrum of history, and in almost any political climate, and on any side of the aisle, that we could have an interpretation of our laws that allows our government agencies to assist a foreign nation such as China to develop new nuclear technology and yet prevent a State within the United States from doing the same. Please join me in supporting House Resolution 518 to keep America at the forefront of nuclear technology.