

Statement to DOE Blue Ribbon Commission Panel - July 15, 2010

Low cost energy brings improvements in quality of life to everyone. We need to provide every avenue of access for the six criteria for successful energy systems: abundant, reliable, dispatchable, responsive to need, compact, and economical . All conventional systems, especially nuclear, have held up under all these criteria for decades .

Despite naysayers, nuclear energy has had a remarkable performance record, besting nearly all sources in these criteria except perhaps hydroelectric. Fleet capacity factors are in excess of 90% and product cost competes favorably with coal.

At one time, nuclear energy growth in the US was common. But a mix of political posturing on weapons proliferation, used fuel disposal, and fear mongering regarding safety has put the US 30 years behind the rest of the world in advances. Our shutdown of reprocessing to stymie proliferation has failed. The rest of the world has continued development and use, relegating the US into a catch-up mode with a 30 year gap.

In 2005, the Advanced Fuel Cycle Initiative was published and initiated. A read through reveals a consistent and advanced plan forward to energy independence and reduction of consumption of ancient fossil fuels. As a nuclear scientist, I saw the AFCI and the follow on Global Nuclear Energy Partnership (GNEP) programs as the cornerstone of an energy policy gone begging for many years. It included closed cycle fuel systems, the production of more fuel, and solutions to the final minimal nuclear ash from recycling. A smaller or single permanent repository as exemplified by Yucca Mtn. could be finally considered; more are not needed. The national energy treasure in the discharged fuel could finally be used. But, like many things too good to be true, political pressures made it nearly still-born in the US. Regardless, other nations are going forward, building fast spectrum breeder reactors, reprocessing fuel, and adopting the GNEP concept.

Several technology testing needs were identified in the AFCI, including new fuels, materials, reactor design, and disposal methods. Many of these needs are stalled because the US has chosen not to use its own facilities and foreign reactors are allocated to parochial needs. Some of those preserved and usable world class facilities are less than 20 miles from this hearing.

It is time to break out of this malaise of laggard action. It should be the recommendation of this study group that the US re-emphasize and move forward on programs outlined in the AFCI and GNEP. This plan has solutions for final nuclear waste, the majority of which is of minor amount in comparison to the huge advantage of modern nuclear energy. It also provides utility in domestically supplying industrial and medical isotopes.

On every energy front, the only long term solutions outside of nuclear bring about higher costs, poor efficiency, non-reliability, and reduced availability, all major hits on the primary energy source criteria noted earlier, a defacto war on the poor. If it does not play in this arena, the US will cease to be a world influencer.

Thank you.

Gary Troyer - Nuclear Chemist
Chair – Citizens for Medical Isotopes
Board Member - American Nuclear Society – Eastern Washington Section
614 Cottonwood
Richland WA 99352
509-946-3425