Nuclear Power an Important Part of Russia/China Economic Agreements

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October 21—Russia and China will undertake an advanced nuclear project as part of the package of bilateral agreements signed last week that Lyndon LaRouche characterized as a "smart move" and a stepping stone to his proposed Four Power Agreement to launch a new world credit system.

In addition to conventional nuclear reactor projects, Russian Prime Minister Putin and Chinese Premier Wen Jiabao signed an agreement to proceed with the design work for two 850-megawatt sodium-cooled fast breeder reactors to be built in China. This advanced nuclear reactor will help China achieve self-sufficiency in its nuclear fuel cycle by "breeding" new nuclear fuel as it produces power. Russia and China already cooperate in the operation of a small, 65-megawatt fast reactor, the Chinese Experimental Fast Reactor at the China Institute of Atomic Energy near Beijing.

In the Atoms for Peace days of the late 1950s and early 1960s, fast breeders were viewed as an essential part of the atom's incredible potential for uplifting the world economy and living standards, because the fast reactor can produce more nuclear fuel than it consumes, thus eliminating future fuel scarcity and giving real meaning to the concept of renewable energy. In order to reduce world population, the Malthusian oligarchy moved to prevent breeder reactor development by equating fast reactors with plutonium bombs, in the name of "nonproliferation."

The fast reactor works by using fast neutrons from the fission reaction, to convert a "blanket" of fertile (but non-fissile) material around the reactor core–uranium-238 (which produces fissionable plutonium-239) or thorium-232 (yielding fissionable uranium-233).

In a conventional reactor, fast neutrons from the fission process are slowed down by a moderator, usually water, in order to maintain the most efficient fissioning of enriched uranium to produce heat. In the fast reactor, the fast neutrons are not moderated. Each fission produces 25 percent more neutrons than in the uranium fuel cycle; the excess neutrons convert the non-fissionable blanket fuel into fissionable plutonium.

Aside from producing power and fuel, the fast reactor can also use the fast neutrons to burn up the high-level radioisotopes in spent nuclear fuel. It can also be coupled with the fusion process in a fusion/fission hybrid, which was envisioned as a stepping-stone to a full fusion reactor.

- U.S. Left Behind -

Japan chose the fast reactor as its reactor of the 21st Century, with the intention of becoming self-sufficient in power production by producing its own nuclear fuel. India plans to use a fast reactor with a thorium fuel cycle, because it has plentiful supplies of thorium. The Russians used a fast reactor for desalination; Russia's BN-350 reactor operated for 27 years in Kazakstan. Another fast breeder, the BN-600 has been supplying power to the electricity grid since 1980, and Russia has a larger fast reactor and other fuel cycle designs in the works.

The United States has been left behind. Although the U.S. pioneered the breeder design, operating an experimental breeder, EBR 1, in Idaho in 1951, which produced enough power to run its own facility, the fast reactor program has been repeatedly shut down, including the Clinch River Breeder Reactor in the 1980s, and the Integral Fast Reactor in the 1990s. The Fast Flux Test Facility (FFTF) in Washington state came under continuous attack, and then received a death sentence under George W. Bush in 2005. At the same time, Bush instituted a nominal fast reactor development project under GNEP (the Global Nuclear Energy Partnership), but in reality the goal was to cripple fast reactor development and fuel reprocessing by tying it to "nonproliferation," and scaring people with the lie that plutonium equals bombs.