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Mel Buckner, 15 Rapids Court, N. Augusta, SC 29841

The Savannah River Site has a wealth of experience in processing nuclear materials and has been involved in the development of advanced processes for recycling used nuclear fuel. These technologies can be used to help solve the nuclear waste problem which is vitally important to our future use of clean, efficient nuclear energy.

In the case of nuclear waste, the technology for disposal of radioactive waste is well established and the US government needs to get on with the licensing and opening of a federal repository for disposal of the waste. Through the use of recycling technologies which have been designed to reduce the proliferation risk, it is possible to greatly decrease the quantity of nuclear waste (>100x) and to reclaim 95% of the energy content that remains in the used nuclear fuel. In addition, it is possible to reduce the proliferation risks of nuclear energy by providing fuel services to developing countries where more than 2 billion people live with little or no electricity.

The Savannah River Site would be the ideal location for a nuclear fuel recycling facility since the Site has been well-characterized over the years through continuous environmental and ecological studies. Also, the Site has extensive experience in handling large projects such as the original nuclear materials production facilities including 5 production reactors, 2 separations facilities, tritium facilities, a heavy-water plant and support facilities. In addition, waste management facilities were constructed including the Defense Waste Processing Facility which is utilizing the technology for appropriate disposal of high-level nuclear waste. Also, the MOX Fuel Fabrication Facility is currently under construction and will be used to dispose of excess weapons material left over from the cold war. After this mission is completed, the MOX facility could (and should) be used to fabricate nuclear fuel using plutonium from the recycle of used nuclear fuel.

World markets are highly favorable for nuclear energy growth - there are more than 400 nuclear plants operating around the globe, producing 16% of the world electrical generation. The so-called nuclear renaissance that is emerging in the US is well underway in other countries with more than

40 nuclear plants currently under construction and many more in design particularly in SE Asia and Japan. At one time, the US led in the development and deployment of nuclear technology through the Atoms for Peace Program that was instituted by President Eisenhower, but now we are running to catch up. SRS could be the centerpiece for a resurgence of nuclear technology development through the testing of advanced, modular reactor concepts, nuclear hydrogen and synthetic fuel production, used fuel recycling, as well as the development of renewable energy technologies to complement the base load capabilities of nuclear power reactors.