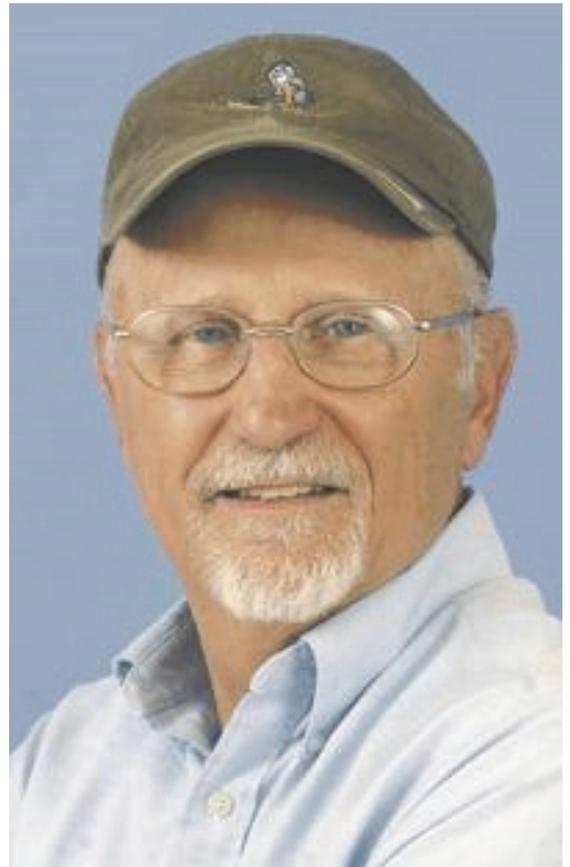


December 9, 2020

Shaky future of nuclear power in the US

By JAMES DELMORE | Columnist

Discussions concerning the small modular nuclear reactors got me thinking about why France has progressed so much farther than the U.S. in producing electricity from nuclear power. Seventy percent of its electricity is from nuclear. It doesn't take long to figure out why.



Jim Delmore
Robert Bower

First, France does not have anything resembling states' rights. Local and regional authorities have no right to unilaterally reject a project as is the case in the U.S.

Second, they have a rigorous safety program that from the beginning has allowed them to operate for many decades without a serious accident like Three Mile Island.

Third, they have a cradle-to-grave nuclear program that does not allow used nuclear fuel to accumulate as in the U.S. With the exception of an ill-conceived reprocessing plant in **West Valley, New York** in the 1960s, the U.S. has not

December 9, 2020

reprocessed any of its used commercial nuclear fuel. It just keeps accumulating at the plants where it was used. Carter used executive edict to shut down all reprocessing, and no president since has reversed that decision.

Fourth, in France the federal government owns and operates all aspects of electricity production and distribution. This concentration of authority to make decisions and to act on those decisions is in sharp contrast to the fragmented ownership of power grids in the U.S. This is in line with their government also owning and operating the rail and health care systems, as they have a much higher level of socialism than the U.S.

I cannot envision the U.S. will ever give up states' rights, allowing the implementation of a system like the French.

Assuming that the SMR concept is successfully implemented and produces electricity as promised, there is one question that stands out: Will subsequent units ever be deployed other than at the INL or will individual states block deployment on their turf? Without reprocessing, the highly radioactive used fuel would just keep accumulating just like all the other reactor facilities in the U.S.

The only practical solution to these issues is for the U.S. to reverse Carter's decision and to allow commercial reprocessing of the huge backlog of used nuclear fuel and to assume cradle to grave responsibility for the U.S.'s nuclear program. If the U.S. is unable to make a decision to allow commercial reprocessing, the entire U.S. nuclear power program will eventually choke to death on its accumulated used fuel. The SMRs will also go down no matter their level of success.

Having spent the first 17 years of my 49-year INL career at the "chem plant" that reprocessed government-owned nuclear fuel, I am convinced that it can be done just as safely here as in France. The early carelessness of reprocessing in the U.S. clearly would not be repeated.

James Delmore is a retired scientist.