

Summary of Conversation with Dr. Amos Holt*

- Reprocessing spent fuel is the key to cost effective utilization of nuclear power for generation of electricity. Look to France for reprocessing of spent fuel. They actually sell electricity to Italy and Germany, for example, countries which closed their nuclear plants due to political protests.
- Key is to concentrate on one type of plant (e.g. Westinghouse), thereby reducing development costs. The future is in compact nuclear plants as developed and used by the Navy.
- Nuclear would be a stable concentrated energy source, not susceptible to natural variations as in wind, solar etc. Note that a typical submarine power plant will have a 50 MW capacity which could supply power to 38,000 - 50,000 homes.
- Major resistance to nuclear is political, not technical. Technical issues can be addressed with sound engineering and management.
- To abdicate building nuclear plants would be abandoning our considerable expertise in nuclear technology. The Chinese are moving hand over fist to dominate the international nuclear industry.
- The key is to reprocess the nuclear fuel, which, at the bottom of the chain, is plutonium which is a source for making bombs.
- Reprocessed fuel can be handled through glassification at the end which encases (locks) the spent fuel in glass logs. (Carl Reinhold Bråkenhielm (2015) Ethics and the management of spent nuclear fuel, Journal of Risk Research, 18:3, 392-405, DOI: 10.1080/13669877.2014.988170)
- In order to have energy for our burgeoning population, we need the same type effort as put into food production. Many in the world would be starving today without the results of Nobel recipient (and former TAMU faculty member) Norman Borlaug who is credited with feeding the world.

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