

## Wrong Technology

by Pat Kenschaft

I recently read an amazing account of nuclear power, "*Wrong Technology: Why the global reactor fleet must go*," [www.nerdylorin.net/jerry/politics/Nuke/teach.html](http://www.nerdylorin.net/jerry/politics/Nuke/teach.html). It talks about our bodies' composition, the chemistry, physics, and history of nuclear power, and what we might be doing differently. Jerry Nelson holds a doctorate in psychology, so he's not an "expert" on any of these, but he clearly is smart and has studied them deeply, and he writes with flare. He acknowledges at the beginning that the essay is hard going and recommends keeping an aspirin nearby. My antidote was to stretch out the reading over many days; there is just so much of this I can stomach at once. His whimsical style helps – greatly.

It did remind me of much I originally learned as a student and why I first became worried about the destination of nuclear "waste." "The phrases 'spent fuel' from 'clean, efficient nuclear power' were lies when they were first coined."

In his description of DNA and its uniqueness for each of us and our "Manual" in each cell, he says on page 8, "If we ever get as far as mail order clones and you want a spare copy of yourself, you won't have to enclose anything in the envelope but your check. Just lick the envelope and mail it."

By page 24 we are ready for horrors. "Reprocessing" means separating the isotopes that have been created, not getting rid of anything, least of

all any radioactivity. What always got separated out was the plutonium, so that the nuclear powers could make bombs.

What gets separated out now is the plutonium, so that no one else can make bombs." Later:

"Separating fuel into components we have no place to store and no reactors designed to split ("reprocessing") remains the goal of the world's nuclear power industry."

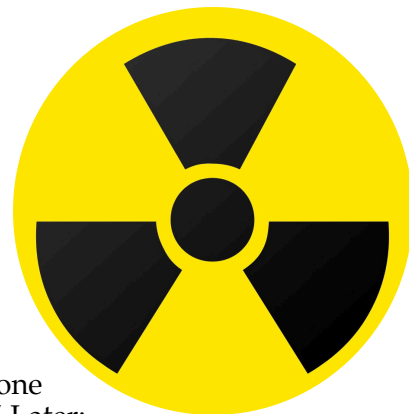
At the end he tells us that the nuclear power industry might have a safe future if it would abandon its original goal of generating plutonium for bombs,

and use "fast neutrons" instead of "slow neutrons." I'm not sure I'm convinced about this, but his case that we must close down all 400+ currently operating plants is very convincing, and if the only way to do so is to give those folks another path, maybe I should overcome my prejudices.

His concluding sentiments are why you might consider reading this provocative, very informative essay: "We are – you, me, all of us – members of the most technologically advanced civilization in history. We must either understand the technology or lose the civilization." ☺

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Fukushima units Nos. 3 (left) and 4 on 24 March 2011, looking seaward. No. 3 is in meltdown. No. 4's 90 metric tons of fuel rod assemblies (about 60 tons of uranium oxide and isotopes) had joined 130 tons of older "pins" in the 5th floor spent fuel pool during reactor maintenance. A hydraulic cement pumping truck (red pipe) is trying to replace the boiled off water in the pool. At 1200 deg C, the fuel rods oxidize directly with the remaining water's oxygen, leaving hydrogen gas explosions to cause the visible damage. Unmanned aerial drone photo released by Air Photo Service.