

Managing Spent Nuclear Fuel: Strategy Alternatives and Policy Implications  
Tom LaTourrette, Thomas Light, Debra Knopman

A solid, thorough analysis

I was prompted to read this book as I wrote a review of "A Field Guide to Radiation." Although the latter has a lot to recommend it, I believed that it is excessively negative about nuclear energy. It inflates the radiation dangers associate with nuclear power out of proportion to the more ordinary dangers (mine cave-ins, black lung, foul air, climate change) associated with fossil fuels.

"Managing Spent Nuclear Fuel" is a good survey of the extent of the problem and the range of possible solutions. They come down to: store it on-site, which is what is done now; recycle it for reuse as nuclear fuel; create large national/global repositories, such as Yucca Mountain. Each has associated costs and risks. Recycling is the most risky, because the products can rather easily be diverted to military uses. Given the relatively low price of uranium, the best options for the time being are those which involve using the nuclear fuel once and disposing of the spent fuel. Today's option, on-site storage, cannot continue forever, but it isn't dramatically hazardous when compared with other sources of generated electricity.

This appears to me to be the RAND corporation at its best. It is a government-sponsored entity, which would make one a bit hesitant about taking its findings at face value. However, this work did not appear to me to have any obvious bias or agenda. They hire smart people to do thorough work, and in this instance I think they got their money's worth.