



COMMENTARY

by Richard Steeves - May 2023

Robert Zubrin has deep insights into how humans could apply science to improve the human condition. Within 300 pages he has managed to clearly explain the history of nuclear power, how to make it safe, how to breed more fuel, how to cut costs, and how it could have relevance in future space travel. I especially liked the last three chapters (14 – 16).

However, I do have a problem with the title. All too often that term relates to weapons, a regrettable association that doesn't need to be repeated on the cover, even for a blunt commentator like Robert Zubrin.

The simplest way to describe the essence of this new book is to select some key phrases from Chapter 15, entitled THE WAY FORWARD. See below:

Nuclear power can provide the energy for an unlimited and magnificent human future. But the technological revolution it offers has thus far been strangled by political constraints, mismanagement, poor decisions, and outright sabotage. How can this situation be rectified?

REGULATORY REFORM

It is the activists themselves who have multiplied the costs of nuclear power by creating and exploiting a system of mendacious hyper-regulation. They are like a poisoner on trial who claims that his victim died of heart failure.

WASTE DISPOSAL

When the Sierra Club in 1974 announced its opposition to nuclear power, it identified preventing the safe disposal of nuclear waste as a key tactic to use to wreck the nuclear industry. As a result of this malicious campaign, nuclear waste reprocessing, subsea bed disposal and land-based disposal have all been blocked,

forcing utilities to store their radioactive waste on site. ... There is no technical obstacle to either nuclear waste reprocessing (the French do it) or land-based disposal (the US military do it near Carlsbad, New Mexico). Subsea bed disposal, which involves glassifying the waste so it is not water-soluble, putting it in stainless steel canisters, and dropping into mid-ocean sediments that have been stable for millions of years, is even more straightforward. Once buried under hundreds of meters of mud in the middle of the ocean, the waste isn't going anywhere, and no nomads roaming the world after the next ice age obliterates our civilization will ever be endangered by it, regardless of how poorly informed they may be. So when antinuclear spokesmen say there is no safe way to dispose of nuclear waste, they are lying.

SUPPORT FOR RESEARCH AND DEVELOPMENT

No major energy technology can come close to matching the safety record of the Pressurized Water Reactor (PWR). Nevertheless, Small Modular Reactors (SMRs) could open markets inaccessible to large PWRs. But what new entrepreneurial companies need most is not cash but facilities to test their concepts and regulatory reform to allow the reactors to be licensed and sold. If these are provided, investment money will follow.

PUBLIC UNDERSTANDING

This is an area where you, dear reader, can take an active hand. This will not make you popular. Support for nuclear power is politically incorrect. But this is a battle of ideas that needs to be fought, and won. History is not a spectator sport. Things happen because people make them happen. If you want a positive human future, you need to fight for it.