

NUCLEAR INTELLIGENCE WEEKLY®

Vol. VII, No. 25



June 21, 2013

Special Reprint of *Nuclear Intelligence Weekly* for Victor Gilinsky & Henry Sokolski. Copyright © 2013 Energy Intelligence Group. Unauthorized access or electronic forwarding, even for internal use, is prohibited.

Pandora's Promise — Is the Issue Really Environmental?

The recently released Robert Stone film, "Pandora's Promise," has created a stir among environmentalists and the nuclear industry. But two long-time industry participants, Henry Sokolski and Victor Gilinsky, argue that in the US the issue isn't really about the environment. Gilinsky is an industry consultant and served two terms on the US Nuclear Regulatory Commission. Sokolski is executive director of The Nonproliferation Policy Education Center and editor of the forthcoming book, "Moving Beyond Pretense: Nuclear Power and Nonproliferation."

The title of the new movie promoting nuclear power, "Pandora's Promise," comes from the Greek myth about the first woman, who, if you remember, had a box (really a jar) that she wasn't supposed to open. But of course she did, and all the evils came out. However, at the bottom of the jar there remained hope. In this case we are intended to conclude that hope means the promise of a nuclear solution to global warming.

Not we exactly, for the movie is not so much directed at a general audience as at so-called environmentalists, who are overwhelmingly against nuclear power. The unspoken premise of the movie is that nuclear power stalled because of unthinking and emotional opposition from the environmental community, and if only these people would examine the facts and reconsider, the way would be clear to a glorious nuclear future.

The method the movie uses for this purpose is to interview five supposed environmentalists who changed sides on the nuclear issue. The result is something akin to a psy-war broadcast to enemy troops by turncoats, urging their former comrades to surrender, too, and it is about as interesting and effective.

The trouble with the movie's logic is that the "environmentalists" had little to do with the halt in nuclear construction, and have hardly any influence on its future. If your objective is to get nuclear power rolling, the people you need to convince are not environmentalists but rather the supposedly pro-nuclear corporate utility executives and their bankers, nearly all of whom have decided that they are not going to touch new nuclear construction unless the government assumes the commercial risk.

The stubborn fact is that nuclear plants are hellishly expensive and US power companies won't buy them unless they get hefty subsidies. And they won't build them, either, unless the accident risks are in large part absorbed by the

government. Some of the power firms already involved in nuclear power are only too eager to close plants if the numbers don't add up, as we have seen over the past nine months in Florida, Wisconsin and California. The movie doesn't mention any of this.

In fact there is hardly any sign that any of the movie's "environmental" presenters have any real understanding of nuclear power beyond the fact that nuclear plants don't spew out carbon dioxide the way fossil fuel plants do. Indeed, some of the presenters sound as foolish in their promotion of nuclear energy as they did in their former opposition to it. What they do have plenty of is fervent belief — formerly invested against nuclear power, and now in favor.

The two former nuclear engineers in the movie may know more but there is little sign they know much about commercial nuclear power. Their pitch is that we need to shift to Integral Fast Reactors, the type of plutonium-fueled "breeder" reactors they experimented with years ago at the national laboratories.

The movie fails to mention that a number of countries built large-scale prototypes of these reactors, almost all of which suffered serious accidents. And of course commercial breeder reactors would be extremely expensive to build. Technological leaps are not always a good idea. There is a reason why airlines have not switched to using supersonic transports.

These reactors are called breeders because they convert a uranium blanket around the core into plutonium, lots of it, which makes for a nearly inexhaustible supply of fuel. So far, so good. The trouble is, this plutonium is of weapons quality, and spreading such reactors and the associated fuel technology around the world is equivalent to providing all countries with the wherewithal for nuclear weapons. To a certain extent, this problem of offering a leg up to weapons is true of current generation reactors, as well.

Richard Rhodes, a historian of nuclear weapons programs, and one of the movie's nuclear converts, admits that the nuclear technologies for war and peace overlap, but then he casually tells us this is nothing to worry about, and the movie changes the subject. You would think he would know better.

(continued on page 2)

Pandora's Promise *(continued from page 1)*

You would think the engineer promoting the Integral Fast Reactor would know better, too, than to claim the design precludes any possibility of a severe accident.

While the movie projects an accident-free nuclear future, it also pooh-poohs the risks posed by current reactors, specifically the post-accident radiation levels that forced massive evacuations of hundreds of thousands of persons around Chernobyl and well over a hundred thousand around Fukushima. Visiting the accident zones does make the ardent nuclear converts a bit “wobbly,” but they recover their faith.

In effect, the movie says international radiation standards are too strict. But these were set by international scientific

committees that are strongly in favor of nuclear power. You get a sense of the intellectual rigor behind the movie's view from its interview with a Ukrainian Orthodox priest who returned with some of his elderly parishioners to live in the Chernobyl accident zone. He assures us that none of them have been sick at all in the years since their return.

It is undeniable that in terms of carbon release nuclear energy has an inherent advantage, the promise of which we may in time find ways to exploit effectively. But in its current form, including what is on the drawing boards, this advantage is still more than offset by a series of problems — cost, proliferation and safety. The movie's promise is still nowhere near at hand. ☼