

# The health hazards of NOT going nuclear

Ask not about nuclear hazards without asking what hazards they replace!  
For example:

## Accidents and Diseases

Per billion MWh of electricity generated from the corresponding fuel, accidents in mining and transportation plus industrial diseases take 22 lives in the uranium cycle; and 1,259 lives in the coal cycle.

## Waste Disposal

The amount of nuclear wastes is minute (after reprocessing, the volume of an aspirin tablet per person per year); that of coal wastes is enormous (320 lbs per person per year). Nuclear wastes can be sealed in waterproof and even earthquake-proof glass and buried deep in the earth; much of the coal waste goes into the atmosphere and people's lungs, killing thousands by cancer, lung, heart and bronchial diseases every year.

## Routine Emissions

Most coal-fired plants are (due to thorium, radium and other radionuclides in the coal) slightly more radioactive than nuclear plants.

## Major Disasters

A nuclear disaster *could* kill 1,000 people, though with a miniscule probability. A dam failure *did* kill 2,000 (Italy, 1962) and left another 50,000 homeless. LNG tankers, each carrying the energy of a nuclear bomb, dock 2½ miles from downtown Boston. Some oil storage complexes in the US could, if they caught fire, kill 20,000 people.

## Terrorism and Sabotage

With enormous effort and minute probability, a team of mad scientists could manufacture a bomb from plutonium oxide (not weapon-grade plutonium) diverted from the power industry, and they could destroy one, perhaps several, city blocks. No scientists are needed to blow up a dam and kill 100,000 people. Plutonium dispersal would kill victims (by lung cancer) between 10 and 40 years later, making it pointless for terror or blackmail. Unlike chemical or biological toxins, radioactive poisons signal their presence and can be detected in minute quantities.

## And So Forth:

In every single aspect, nuclear power is safer than the forms of power generation with which we live now. By partially replacing them, *nuclear power saves lives*. 1,600 American lives a year even now; and 200 a year more for every additional percentage point of total generating capacity.

## SAYS WHO?

Not the ideologically motivated critics lusting for political power. They don't deny the facts given above; they just ignore them.

Not the utilities, though they favor nuclear power for economic reasons. They don't like to scare the public with the dangers of coal, gas, oil and hydropower.

Nor do we, either. We are not against coal or other fossils (for the biggest health hazard of all is lack of energy). All we advocate is the same yardstick.

## WHO'S "WE"?

*Access to Energy*, a monthly pro-science, pro-technology, pro-free enterprise newsletter. Edited and published by Dr Petr Beckmann, professor of electrical engineering at the University of Colorado (independently of the University or any other institution).

We report on all forms of energy, not just nuclear. Mainly about the scientific and technical aspects, but also about the underlying political and economic issues. For we believe that there is no shortage of energy (when will the sun stop shining?), but that access to it is blocked by ideological superstitions and a lack of will to face a crisis.

## WE ARE FIERCELY INDEPENDENT

We own no stocks in any energy company. We accept no advertising, no contributions, no government funds or any other subsidies. We are beholden to nobody.

We accept nothing except your subscription. *YOU are the one* who will not renew if we do not provide you with first rate information and comment. If we are not good enough, we will go under.

But so far we haven't been doing badly. With newsletters folding right and left, we are in our third year and our circulation is growing. We are in the black, and this advertisement is paid for out of our profits (we do not apologize for the word).

"An incisively written tell-it-as-it-is journal that is fast developing a nationwide following," writes nationally syndicated columnist Anthony Harrigan.

## HOW GOOD ARE WE?

We warned of the folly of leaving a large fraction of US energy sources in the hands of unstable sheikdoms in our first issue, two months before the Arab oil embargo. We re-

ported on one of this century's great engineering feats, the installation of the *Beryl A* (you may not have heard of it before). We explained the idea of Ocean-Thermal Energy Conversion long before any other popular journal.

We write for laymen; yet physics PhD's renew their subscriptions, too.

## HOW OBJECTIVE ARE WE?

We are for science and against superstition. We believe the market allots resources more efficiently and justly than any bureaucracy can. We are opposed to using environmentalism to impose a lifestyle on others in order to protect the exclusivity of an elite.

We are not afraid of controversy and stand up for what we believe is right. Does that make us opinionated?

You're darn right it does.

## WARNING

Yes, we want you to subscribe; but we want you to enjoy the newsletter, too. We do not aim to please *everybody*.

If you believe that science and technology should be curbed, natural resources nationalized, and the energy industry administered by a government bureaucracy, you will find it more rewarding to read the populist literature put out by Ralph Nader or the Friends of the Earth.

What we do is provide facts for readers not yet afflicted with the philosophy that the world owes them a living or that astrology is superior to astronomy.

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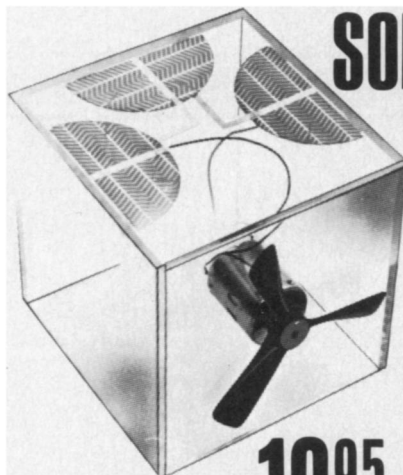
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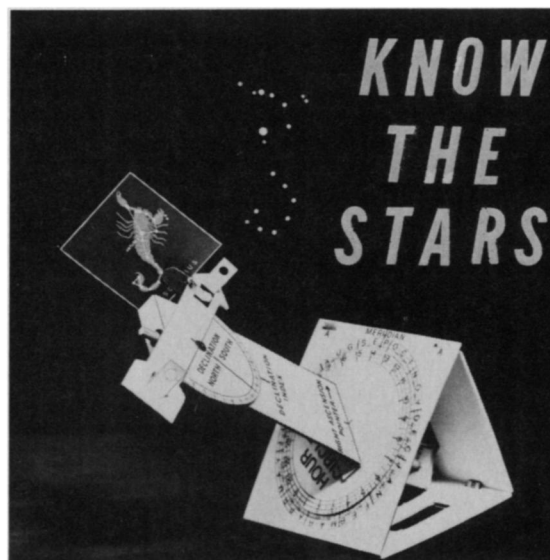
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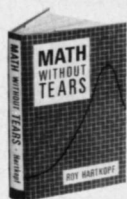
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