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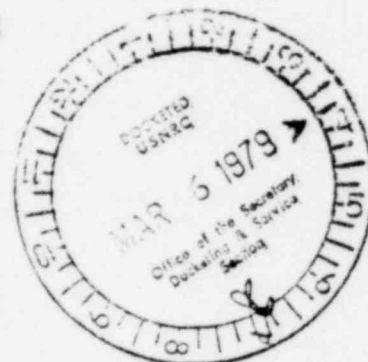
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L.A. Statements

A VIEW ON NUCLEAR POWER MORATORIUM

by

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A VIEW ON NUCLEAR POWER MORATORIUM

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I should like to outline why a moratorium on construction of any further nuclear power plants plus a phaseout of existing plants is essential.

There seems to be a widely-held view that "reasonableness" argues for the discovery of an acceptable middle ground between the opponents and proponents of nuclear power as one of our energy options. I cannot accept this view, since there does not appear to be any reasonable prospect that a middle ground can be found.

The essence of the problem is exceedingly simple, arising from the immutable laws of physics. If we generate nuclear power to meet any significant proportion of our energy use, we create astronomical quantities of radioactive fission products and plutonium-239. Since no serious opponents or proponents of nuclear power contest the extreme toxicity of long-lived radioactive fission products and of plutonium -239, the problem becomes, straightforwardly, whether or not these substances can be virtually perfectly isolated from the biological environment almost forever.

Let us examine this "almost forever" requirement.

For the prominent long-lived fission products, such as Strontium-90 and Cesium-137, with half-lives of approximately 30 years, the requirement is roughly 99.99% containment (isolation from the biosphere) for some 1000 years.

For plutonium-239, with a half-life of 24,000 years, the requirement is roughly 99.999% containment for some 250,000 years.

The proponents of nuclear power recognize these requirements and say they will provide the technical modalities required to achieve the necessary isolation. In taking this position they demonstrate a total divorcement from common sense and the real world. They ask society to believe a miracle will be accomplished.

It would be difficult enough, given the frailties of all high technology, to promise a technical solution to the requirements. But it is orders of magnitude more difficult to promise this given the frailties of human societies and political entities.

In the past 60 years we have experienced two full-scale World Wars, numerous lesser but bloody conflicts, an acceleration in revolutionary activity, and almost unbounded guerrilla terrorism within and between countries. Who is so all-seeing as to predict that suddenly societies will become tranquil and totally peaceful? This would certainly be a requirement for societies basing their energy supply upon nuclear power.

In the USA, for example, a fully developed nuclear power industry will mean the commercial annual handling and transport of some 600,000 pounds of plutonium-239. The consequences of escape of 10 to 100 pounds of plutonium-239 to the environment in certain forms can be beyond comprehension -- for hundreds of thousands of years. Can anyone accept the credibility of those who casually reassure us plutonium-containment will be performed flawlessly, under all circumstances essentially forever?

And can anyone accept the credibility that guardianship of the radioactive fission products, in whatever storage form is decided upon, will be 99.99% perfect for 1000 years?

It is time to dismiss the nonsense of those who promise such miracles as being in the same class as the therapeutic promises of nostrum-vendors in travelling carnivals.

Since the promise of such miracles is patently ridiculous, it follows that going ahead with nuclear power represents a monstrous abrogation of rights, in advance, for the hundreds and thousands of generations of living beings who will follow those alive today. What right do we have to build in the prospect of irreversible health consequences (genetic injuries and deaths, cancers, leukemias) at a level that could negate all public health advances of the past few centuries?

Any statement that the nuclear power industry has thus far accomplished containment is simply false. The nuclear industry monitoring has varied from unreliable to non-existent. There is little reason from experience to believe the nuclear industry even knows what level of containment it has achieved thus far.

Were the problem one of better technical fixes, it might be credible that the learning curve would ultimately lead to an adequate solution. But the problem is not one of technical fixes; rather, it is one of predicting almost perfectly the history of human societies for the next several millenia and hundreds of millenia. Any reasonable person would use common sense in appraising the promises of the latest vintage of super crystal ball gazers.

Finally, the nuclear power proponents end up with the argument that society must accept this monstrous risk because "there is no alternative". It so happens that a considerable body of scientific and engineering opinion holds that such alternatives as solar energy are both technically and economically feasible, particularly when coupled with even rudimentary measures of energy conservation, to solve our energy requirements.

If reasonableness is desired by the proponents of nuclear power, it must start with them. They have mounted an unconscionable propaganda campaign to ridicule alternative sources of energy and to prevent a full,

open objective evaluation of both the feasibility of the technologies and of the economics aspects. Such an objective evaluation is urgently required and must be achieved. But the situation is not so urgent that we must accept nuclear power first. By no means.

It is clear that the nuclear option represents the last gasp of a hopeless world. The proponents of nuclear power recognize this, but they hope for a miraculous technical fix that can abolish the realities of human history.

Far better for the opponents and proponents to set aside the nuclear controversy through a total moratorium on nuclear power for now. All the efforts should then be expended in a serious evaluation of alternative energy sources with prospects brighter than a contaminated planet. There will be plenty of time to choose a horrible alternative later, but I doubt extremely seriously this will be necessary.

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