Carter's Plutonium Ban: Fraud Versus Fact

The following is excerpted from a speech by Dr. Charles Storrs, a representative of the Connecticut American Nuclear Society, delivered at the Fusion Energy Foundation Conference May 6 at the New York Hilton Hotel.

The Ford Foundation Mitre Report (on energy, on which Jimmy Carter's April 20 address was based -ed.) fails to mention that there is a big difference between the type of plutonium produced in commercial reactors and weapons grade plutonium. They make the simplistic assumption that plutonium is plutonium and weapons are weapons.

The government has gone to great extents and cost to generate highly enriched U-235 for weapons and wouldn't do this if it weren't necessary and furthermore has gone to very great lengths to produce weapons grade plutonium. You use special reactors to produce Pu-239 (weapons plutonium -ed.) by running the fuel for only two weeks, taking it out and extracting the Pu-239. In a commercial reactor you leave the fuel in the reactor for three years during which time you not only generate Pu-239 but in addition some of the plutonium absorbs a neutron and becomes Pu-240. So at the end of three years you have about 60 percent Pu-239 and 24 percent Pu-240 which is not fissionable. For a long time it was thought that you couldn't make a bomb out of this mixture because of the high content of non-fissionable material. Also — I'm now quoting out of the Ford report which has this buried in it, but of course does not bring it out in the summary or conclusions — commercial plutonium high neutron emitters in it, i.e., Pu-240 and when you try to make a bomb out of it bringing the two pieces together the neutron flux causes the thing to go off prematurely before you get it together. What happens in essence, is that you either get no explosion at all, or a very weak one. It's hard to predict, it's hard to calculate. The report here suggests that you have to inject a high neutron source at just exactly the right instant to make it go off, and it also suggests that to make this explosive go off, it would take one ton of TNT as the propellant. So we are not talking about a suitcase that someone left in Grand Central Station or something, we're talking about one ton of TNT with triggering mechanisms to make it all go off at once, and some subtle way of getting the neutron source to go off at the right time and you certainly get the impression that this is a very difficult bomb to make.

It is quite clear, I think, when you read this, that if you wanted to make a nuclear weapon — if you were Idi Amin or somebody or other who might decide to make one, you would not use commercial plutonium, you would take the route that everyone else has taken — and that's through a special production reactor which could be a nice innocent research reactor — as the Indians have used to produce their nuclear explosives. You get a nice research reactor and you stick some fuel in and keep shoving it out every two weeks or so, and extract some plutonium U-239.

So this business about the great danger of using commercial fuel is really not there. Furthermore, some of the people who signed this report know that. Defense Secretary Harold Brown knows that.

Will Carter's Insulation Drive Really Save Energy?

While insulation manufacturers are in understandably good humor over the White House assertion that increasing fuel costs increases the value of "energy-saving" insulation for homes and buildings, all concede that the idea is a calculated fiction. The reason is simple. Whether the insulation material selected is expanded mica, plastic foam, or the more commonly used glass fiber, insulation manufacture is *a highly energy-intensive business*.

Were Carter's insulation scheme to be implemented as proposed for homes, factories, buildings, etc. (although that is not its intention), the energy savings in dollars and cents at the consumer end would natually be expected to increase as energy costs increase...but wait a minute. Since energy costs are a primary component in the costs of energy-intensive insulation manufacture, the costs of production would go up in direct proportion, driving up the price of insulation to the consumer — also in direct proportion to, and therefore offsetting, the expected savings in energy cost.

For instance, let the Carter Administration spend $8 to $10 billion for insulation immediately — the minimum wanted to bring U.S. homes and so forth up to a good heat-loss standard; it would then be five years before a net saving of energy is realized, i.e., energy saved through insulation, over the energy absorbed in the insulation's production. While looking towards an energy saving in the winter of 1982-83 at the earliest, the program described would require an immediate energy investment (say, this summer) the equivalent of 3 billion

cubic feet of natural gas — an investment equal to the energy "shortfall" which struck the U.S. this winter.

The Housing Issue

This does not mean that insulation itself is a total fraud. On the contrary, purged of its current "zero growth" parameters, insulation is a feasible and desirable feature of a competent, technologically-vectored program of overall energy development. Generally, insulation has been under-utilized in home building and remodelling for reasons that are comparable to the precedence given the proverbial tail-fin over basic mechanical improvements in auto manufacture. A well-insulated home will cost a buyer $1-2,000 more, and while representing a good investment in terms of annual fuel savings, the same expenditure diverted by the builder to cosmetic additions to the visible exterior of the home would add a good deal more than $2,000 to the market price and his profit calculations when originally designing the building.

The same and additional prohibitions apply doubly in the case of an apartment building, with the difference that in the instance of most big-city apartments, the best approach for the sensible leasor would be to have his 50-100 year old building demolished and replaced with a well-built, sturdy, and well-insulated new apartment house for a net energy and social cost savings more than compensating for the overall social costs of such city-wide demolition projects.

This is not so unfeasible as it first might seem. A sensible energy program entails, at minimum, ending the obstacles to the licensing of a completion of current nuclear plant construction. The net energy increase realized on the basis of completed nuclear facilities would permit a far more rapid, continued expansion of the nuclear energy program, using fast breeder and plutonium recycling to bridge the gap into a fusion energy economy in the 1990s.

Industrial expansion and development programs consonant with that easily-achieved increase in energy supplies and consumption, place a premium on upgrading the quality of labor-power available from the present workforce, with an early emphasis on bringing our dilapidated and overly small housing supply up to modern standards (for example, the educational essential of a "room of his own" for his child).

The owner or leasor of our current, typical housing unit is principally deterred from the indicated tear-down-and-rebuild procedure by the fictitiously high market valuation attached to his present dilapidated structure, a feature of monetarism's subjugation of the interests of capitalist development to the procedures of capitalization of rent, including mortgage refinancing, speculative leveraging and other crushing aspects of the debt problem afflicting the U.S. housing market.

Eliminating that profit-accrual to the account of debt which "values" the slums and begin a program of broad and thorough housing renovation and construction, is not only feasible but mandatory. But, to outfit the same buildings with any type of insulation under existing market conditions as Mr. Carter proposed last week (through "tax incentives," energy price-hikes, and slave labor "public works" operations) is rather like treating a case of acute psychosis with a liberal dose of LSD. To produce insulation at present and near-term energy costs, planning to reap savings benefits of a later, higher energy cost is to enter the insane and lethal world of monetarist finance and fascist planning.

We are faced with a fraudently elected president, who now enjoys only vestiges of that modest support he did enjoy during his campaign, appealing for popular support of a massive expenditure on insulation and solar panel manufacture to "conserve" energy. If it wasn't so damed dangerous, it would be downright funny.

The Insulators' Delusion

There is a rule of thumb, accepted in the insulation manufacturing field and sales community (and accepted with reservation by builders) that a unit of energy cost put into the manufacture of insulation will result in a saving of five units of energy when that insulation is put to use. This is approximately true for a severe northern climate and moderately thick insulation. As the thickness of the insulation decreases or the temperature gradient decreases, this twenty percent return on investment decreases accordingly. (On the other hand, given extremes of temperature, the first inches of insulation can result in a much higher rate of return on investment.) This, however, is only a rule of thumb. Careful consideration must be given to the development of energy production, before, or at least at the same time one considers energy saving. The current direction and thrust of energy development is clearly spelled out by the underfunded fusion program and the under-utilized fission program: in short, energy de-development. With that remains of his smile, Jimmy Carter solemnly tells us that we must have colder homes, smaller cars, more insulation and more sacrifice because of the "grave energy shortage." However, he continues, there is no need for the fission breeder reactor, because we have lots of uranium for our energy needs.

To tax, or otherwise inhibit energy use, while providing incentives for energy saving, is exactly like giving up one's whole income to take advantage of a special sale. To reduce spending for nuclear power development, to provide subsidies for home and business thermal insulation, is insanity. The purpose of the administration energy plan is not to save energy through insulation or any other means. It is to build a powerful energy branch of government to control energy production and use in line with a massive curtailment of industrial output and capacity.

Some insulation manufacturers and dealers still think the Carter "energy program" will benefit them by focusing attention on the advantages of insulation. As we have made absolutely clear, there is no thought nor any possibility of actually instituting a massive insulation program. The administration program is aimed at deindustrialization in the hope of maintaining Rockefeller monetarism's debt-rollover arrangements for just a little while longer and that deindustrialization emphatically includes the insulation-manufacturing industry. The Carter "energy program" obviously has nothing to do with energy saving, or indeed anything to do with energy per se. The insulation manufacturer has simply received a little bit of free advertising from a source whose purpose thereby is to ultimately put them out of business!

— Wayne Evans