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