ATOMIC ENERGY ESTABLISHMENT, LUCAS HEIGHTS

23RD MARCH, 1962

Speech by the Prime Minister, the Rt. Hon. R.G. Menzies

Professor Baxter, and colleagues, and ladies and gentlemen:

Those of you who have suffered under me before in the opening of something will know that I have now developed the almost perfect technique: I open the building, or the buildings, first, and then talk afterwards, on the sound principle that if I talk first I may well forget to open the building at the finish.

Today I am opening two buildings. This building, the Reactor Physics Building and the Radiation, Biology, Health, Physics Building - a complex of names which, of course, are self-explanatory to laymen like me and perhaps to some of you.

Behind me is a low power reactor called "Moata". All I know about this name is that it is an aboriginal name, stolen from the indigenous inhabitants of the country, which originally meant "fire sticks". I am bound to say that if any of our forefathers of the aboriginal races had been told fire sticks of this kind would some day be put on the ancient hunting ground there would have been tremendous incredulity and, perhaps, some form of trouble. But here we are.

As we drove in here today I remembered, because I had been told, that in 1955 this was just scrub and sandstone outcrops. What has been done in the course of something under 7 years is, I think, remarkable; and my colleagues of the Treasury think that it is even more remarkable because its capital cost has been £11m. Its operating expenses I hesitate to refer to, because we haven't yet reached the Budget and the preparation of the estimates. But I have gathered that it is fairly substantial. And really what I am doing this afternoon is not only to occupy your time for a few minutes, but to put in a bit of a plug with the Treasury - you will understand, therefore, if I appear to be a little expansive on the subject of Lucas Heights.

This place, taking it as a whole, one element of which, the principal Hifar Reactor, I opened Ithink in 1958, and another, the Engineering Building in 1960, and this one in 1962, this remarkable enterprise is, I believe, essentially a gathering together not only of bricks and mortar, but of very high class scientific manpower. And when I say manpower, of course, I rely on the Acts Interpretation Act which says that man includes woman, the ridiculous proposition which only the Parliamentary draftsmen could seriously believe.

Now, Sir, a great research establishment like this has very many aspects. First of all, research is being conducted here into a variety of aspects of reactor systems avoiding duplication - I emphasise that - and thus, by avoiding duplication, but by doing first-class work, adding to the sum total of scientific knowledge in the world. I said I emphasised avoiding duplication because I know that there are many people - I hope a diminishing number - who look at an enterprise of this kind and who say, "Well, what are they doing here that can't be better done elsewhere? Is this just a matter of prestige?" And the answer to that is that it is not, in any real sense, a mere matter of prestige. Work is being done here which is not being done in other places; and the people who are engaged here in this work involving such skill and knowledge that it is beyond the comprehension of most of us, including me, are adding to the total sum of scientific knowledge in this field in the world. Now I've said that, and I've repeated it, and I emphasise it, because, after all, the people of Australia are the people who provide the means for doing these things, and the people of Australia are entitled to know that what is being done is of genuine and cumulative significance.

In the second place what is being done here involves the training of Australian scientists - and of course we haven't an unlimited supply of scientists in Australia. I don't suppose any country has an unlimited supply of scientists. But as the world goes on pell mell, particularly in the last decade, or the last 20 years, it becomes increasingly important that we, in Australia, possessing great native talent in these fields should produce the highest possible quality of scientific manpower, and do it to the highest possible level, and do it to as great a numerical extent as we can. This is one of the great tests of national progress, and of the advance of world knowledge.

Now by training scientists here we do two things. I say this to the lay people, if any, who are here today. First of all it assists our own capacity to contribute to world knowledge. I have mentioned that. I repeat it. It assists our capacity to make a contribution which is significant and which will be, in many ways, original. And in the second place, not being entirely unselfish on this matter, it assists our capacity to take full advantage of work done elsewhere in the world. Because what is going on in other countries may mean very little to the uninstructed; but it will mean a very great deal to people of high scientific attainments in this field right here in Australia.

Therefore we have this both ways. We contribute and we gain. And in order to contribute, and in order to gain, we must set our marks high and achieve the highest possible standard of efficiency, of understanding, of research, of application.

Then, Sir, of course, there is another aspect of this matter. We want to attain in Australia standards of scientific skill which will do two other things. First, to facilitate exchanges with similar bodies overseas. This is an old problem as to whether people should go from Australia to other countries, as to whether people from other countries should come here. There are people, I'm sure, still living who believe that whatever we do we ought to huddle our garments about us, and keep it to ourselves and show how clever we are. But of course there can be no major advances in this field unless our people, trained and working here are able to go to other countries with intelligent and educated minds in this field, able to find the best that is going on; and unless we can at the same time attract to this place men of great consequence in these fields from other countries. It is the fluidity of scientific knowledge in the world which is at the very heart of developing the sum total of scientific knowledge in the world.

Then, of course, I must say to those among you, if there are such, who have what people are pleased to call hard, practical minds, that every now and then there is what I would call in an entirely unscientific way, a by-product of the work that is being done here. Research, yes, above all; but, in the course of this research - I was just discussing it at lunch time - discoveries are made of immense utility, such as the discovery of new techniques for welding stainless steel. I won't go into that story but it is fascinating to me to discover that in the very course of experimental work here problems crop up by the way in the use of materials which require a solution. The solution being found turns out to be of general application in many other fields of industry.

I hesitate to commit myself to the proposition that a radio-active isotope is a by-product - I don't suppose it is. But I do know, as you know, increasingly, that the production of radio-active isotopes here has opened up a new field in Australia for agricultural research, for medical research.

Indeed it isn't long ago, before the election I assure you, that I went to Newcastle and at that time I was received with every outward sign of friendliness - for all I know it still continues, though a little muted, perhaps, by events - and I was told there and then by people actively concerned with the development of Newcastle that the use of radio isotopes from here in the investigation of the movements of silt in the lower reaches particularly, of the Hunter River had turned out to be of enormous practical advantage.

On top of that, let me once more say to those who think we may be duplicating work, that I am credibly informed by the technical members of the Commission - and to them I make my bow - that there are types of radioactive isotopes which don't carry, which have an early period of radioactive decay and therefore can't usefully be imported. But if they are produced here then they have a longer period of life, they have an immediate application to the job in hand.

One matter that has been mentioned to me is that Cobalt 60, as I will, in my ignorance, call it, is being used at a great city hospital in Sydney in the treatment of cancer. Now all these things are not the main end result, but they are fascinating incidental results in a great piece of research of this kind.

The only other thing that perhaps I ought to say to you is this. There are many people, indeed there must be many hundreds of millions of people in the world who, if you say nuclear power think at once of nuclear weapons, of the great, pressing, anguishing problems of nuclear military power in the world and are therefore a little bit inclined to say about the nuclear physicists "A curse on you. You have brought nothing to the world except the threat of imminent disaster". That is because, of course, what is best advertised tends to be more popularly understood. Here today we have a magnificent opportunity of being reminded that the work being done in this field is not primarily work designed to destroy people, but is work designed to uncover a new source of advantage for the human race.

We are all familiar with the phrase that was, I think, used by President Eisenhower about "atoms for peace". But you look at our own country. It is quite true that there are many parts of Australia where vast supplies of coal make the problem of power production technically simple, though it may be, occasionally, financially difficult; there are great enterprises of hydro-electric power both on the mainland and in Tasmania. But there will come a time as the population of this country increases, as new resources are uncovered in remote parts of this country, when nuclear power will become as much the servant of peaceful enterprise as thermal power, or hydro-electric power. Indeed I am told by those who understand these matters that it may well be that in parts of Australia remote from coal, or water, in an appropriate position, nuclear power may become quite competitive by the early years of the next decade, by the early 1970's.

It doesn't end there. The other day I was reading a book which the President of the United States was good enough to send to me containing a series of statements made by him during the first 12 months of his office. I was very interested to find that one of them related to what had to be done, and no doubt very largely by the use of nuclear power, in experimental work on taking the salt out of water. Think of what this could mean to Australia; think of what this could mean to a continent whose greatest problem is water, having regard to its area and to the distribution of its population.

The other day my friend Dr. Raggatt, under the guise of proposing a vote of thanks to somebody, made the principal speech of the evening. I am familiar with this technique - it happens to me regularly at almost every political meeting I have. But he did draw public attention to a matter with which some of you have been familiar, or at least interested, for a long time, or for some years now, the great problem of creating water storages, not by the painful and expensive processes of earth moving as we've known them in the past, but by the definitive use of nuclear explosions in order to create a suitable crater and a suitable holding means. Well, no doubt this is in its early days and there will be many blind walls of ignorance to get through before it is ultimately achieved. But I mention it to you merely to indicate that we are only at the beginning of the peaceful developmental application of a means which today is too commonly regarded as merely an instrument of destruction.

The day will come when we will have nuclear powered ships sailing into our harbours; the day may come, though Heaven forfend, when we will need to be infinitely better informed than we are now about protecting people against fall-out. And one of the buildings that I am opening today has, as its special function, or one of its special functions, to study this matter.

Then, of course, on top of all that, in an international sense we will receive, or continue to receive, into this enterprise students from South-East Asia, people who come here either under the Colombo Plan, or, as I believe increasingly, under the auspices of the International Atomic Energy Agency. This is something tremendously exciting. I feel it myself; I hope that everybody will feel it. This is not just like opening a factory. This is not just like opening something which will apply known means to achieve a predetermined result. This is one of the great exploratory exercises in the history of our country into powers as yet a little known which will some day be immeasurably better known. And the better known they are I believe the better it will be for ordinary mankind.

So, Sir, these two buildings today, coming on top of what has been done here before add up to a new adventure, an exciting adventure, and, as I believe I may say, a highly practical adventure. They will, I believe Sir, serve to correct the widely held impression that nuclear power is an instrument of destruction. They will, as they go on, persuade more and more people to realise that what we are dealing with today is an instrument of human development ultimately to operate for great human happiness.

Sir, I have a very great pleasure indeed in declaring these two buildings open. (Applause)
