REMARKS BY REPRESENTATIVE CRAIG HOSMER*

Joint Committee on Atomic Energy

I have in mind two messages for this evening. First, I would like to give you an idea of how the Joint Committee on Atomic Energy affects science in general and accelerators in particular. Secondly, I want to comment on what I think the future may hold for the accelerator fraternity.

Most of you probably are familiar with the Joint Committee and the heavy-handed way in which we run the nation's nuclear affairs. Assuming that you are already duly indoctrinated, I'll skip my discourse on the historical and statutory reasons for its ferociousness and give you the picture of how we look at accelerators.

I realize that Congress enjoys no public reputation for pristine objectivity regarding the geographical distribution of your tax dollars. Nevertheless, a couple of illustrations will show this reputation is not entirely deserved, particularly in the case of the prestigious and expensive particle accelerators.

The Battle of the 200 BeV

As an example, let's take the 200 BeV accelerator siting sweepstakes. As you may be aware, Chairman Holifield and I are Californians. We had a site out in California--two in fact--and we had people at the Lawrence Radiation Laboratory who very much wanted to build the 200 BeV, particularly since they conceived and designed it. But the AEC, in its wisdom and with the help of the National Academy of Sciences, chose Weston, Illinois. At that point, Chet and I pledged our full support to that location. There were no attempts by anyone on the Joint Committee to re-open the case. As a matter of fact, we made a considerable effort to keep it closed and to enlist the cooperation of those elements of the scientific community who were bitterly disappointed by the decision. Even during an earlier period, when nearly every Joint Committee member had a site somewhere in or near his district -with constituents clamoring for him to lead their bandwagon -- the member normally absented himself when the site-selection team visited his bailiwick. "Hands-off" was the byword.

Later, when the 1967 controversy over civil rights issues in and around Weston erupted and seriously endanged the project, our Committee members--with nothing to gain except perhaps some unwelcome animosity from a not insignificant voting bloc--defended the project against proposals to relocate it or to defer it until the Illinois Legislature enacted an open housing law. Our feeling was that we should go ahead with the project and simultaneously do everything possible short of blackmail to correct the civil rights deficiencies. The excellent record of local housing ordinances adopted in the area since seems to attest to the wisdom of this approach.

Like a drowning swimmer, the 200 BeV twice nearly disappeared from view, but on both occasions was saved by Joint Committee rescue operations. This year it will sink or swim for good. It's the single largest science-oriented construction item in the entire Federal budget. Requests for full authorization -- that is, the remaining \$215 million or so--and substantial appropriations--over \$100 million--are now be-fore Congress. I support both requests. Indeed, last December when President-elect Nixon asked my advice on a number of major atomic energy policy matters, I strongly urged that his administration embrace the project. Such action would be fully consistent with the Republican party's campaign platform and a clear signal to the scientific community that the Nixon Administration will support a strong basic research program. We can be confident that the 200 BeV money will be in the new President's budget. His Science Adviser, Dr. Lee DuBridge, also has enthusiastically recommended it and I expect the project will continue to receive strong bipartisan support and the needed funds from the Congress.

The Rape of the Virgin Woodside

The 1965 SLAC power line controversy was another instance in which the committee used its nonpartisan and nonparochial muscle to boost an accelerator over an obstacle. This was an issue where discretion dictated a course other than the one some of us took.

The AEC wanted to run a high voltage overhead power line to the Stanford Linear Accelerator Center. The small town of Woodside objected and demanded that the AEC put the line underground through its city limits. The AEC finally and reluctantly had to step in and condemn a narrow strip of land and construct the line. The battle, of course, ended up in court and eventually involved the Sierra Club, the California legislature, and even President Johnson and his natural beauty adviser, Laurence Rockefeller.

AEC told the court it couldn't afford the delay in power availability or justify the additional millions involved in undergrounding the lines. The Commission won in the U.S. District Court but lost in the Court of Appeals, where a new interpretation of an obscure section of the Atomic Energy Act cast a long shadow over AEC's general powers of eminent domain. The question then was whether to accept a delay in appealing to the Supreme Court or to immediately amend the Atomic Energy Act to overcome the adverse decision and

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make AEC's authority to run power lines to its facilities crystal clear. Despite the heat it would generate in our own Galifornia back yard, Chet Holifield and I joined with Senators Pastore and Hickenlooper to sponsor the clarifying legislation.

Editorial writers and cartoonists from San Francisco to New York excoriated us for conspiring with the big, bad AEC in its rape of innocent Woodside's virgin scenery. Overlooked by most newspapers accounts was the fact that the allegedly hapless victim had long since lost much of her virtue. The town already possessed at least one unsightly wooden telephone pole for every two inhabitants, and no undergrounding to speak of--even for low voltage power lines.

We promptly amended the Act and AEC proceeded to build its single circuit overhead line of excellent design and low profile using only tubular green poles. I think they are really rather attractive power poles, and last year they helped win a top national award for electrical-line design. And even though Woodside's leader in the battle against SLAC, Pete McCloskey, has since been elected to Congress, the controversy is not expected to revive -- McCloskey and I are no longer "poles apart."

Forcing the Meson on a Reluctant Administration

Although part of the Joint Committee's job is to put out fires like this one, we occasionally light some too, particularly under the Executive Branch. A case in point is the Los Alamos Meson Physics Facility. But for the Committee's interest, I seriously doubt that this unique research tool would be under construction today.

In FY 1966, the Bureau of the Budget turned thumbs down on the \$54.5 million Meson factory. In an effort to initate work on the project, the Joint Committee, nevertheless, authorized funds to get the necessary work underway. We were anticipating full authorization of the project in the next budget.

But the Johnson 1967 budget again relegated the facility to study stage limbo. So the next time around the Committee did more than hint at its desires. We gave the President no more money than that the liberal-oriented scientific community he asked for--\$3 million--but in our report we expressed the "expectation" -- a euphemism for "direction"--that actual preliminary site work be performed with part of the money. The following year, a scant 10 minutes before our FY '68 authorization hearings on the Physical Research Program got underway, the President submitted an amendment to his budget which included, of all things, full authorization of the Meson Facility. Since then, getting the actual construction dollars out of the Congress, and then released by the Bureau of the Budget, has proved to be an annual mini-crisis for the Pi-Meson set at Los Alamos, but the battle is being won and the facility is on its way.

A somewhat different example of the Joint Committee's meddling in the nation's accelerator business occurred during early consideration of the 200 BeV. The original design study by the Lawrence Radiation Laboratory proposed a facility to cost some \$308 million, excluding research equipment. The BOB, however, decided to devalue the BeV and proposed a two-phase program, with the first phase costing about \$240 million. The Commission, without any real choice in the matter had to go along.

We decided that we weren't about to buy the 200 BeV accelerator on an installment plan. Instead, we demanded it be built with the full design intensity of 3×10^{13} protons per pulse as originally and wisely planned. Furthermore, we recommended that the AEC give careful study to the possibility of building stretch capability into the machine, an option of going to energies higher than 200 BeV. Over the protests of the Budget Bureau, we authorized this design and provided \$7.3 million to get it started. Dr. Robert Wilson, the Laboratory director, believes he will meet these objectives, do it for the price specified and that he may even be able to end up with a better facility than we had hoped for.

A recital such as mine tonight should convince at least some of the non-believers that Congress in general and the Joint Committee in particular, does not take a narrow, parochial, selfish view of accelerators. We conceive of our role as going beyond simply stamping "approved" or "verboten" on AEC and Executive Branch proposals, to the point of providing leadership in nuclear affairs when that leadership appears to be needed and seems to be lacking elsewhere.

Another Look at the Scientific Future

Now, I would like to look ahead for a moment to what may be in store for the scientific community--particularly in the important category of money.

First, the posture of the Nixon Administration on basic and applied research. This is an important subject to me. I am confident that my personal credentials as a friend and supporter of science are beyond reproach. I am also aware generally does not trust the Republican Party. But I feel certain that this distrust will be wiped away over the next few years as they see repeated examples of President Nixon's eager support for vigorous research efforts in the sciences.

Already we have seen evidence of his willingness to press ahead with the 200 BeV project. And despite a critical budget situation, we have seen restoration of the \$10 million in funds previously cut from the budget of the National Science Foundation. Also, we have had the President's prompt decision to take the Plowshare program off the shelf by pursuing the Australian harbor experiment.

I feel this kind of performance will continue. In fact, here tonight I can give you almost a stainless steel or zircalloy clad guarantee that he will keep channeling Federal funds to science in reasonable or even generous amounts if the overall budget situation is considered.

Of course, government funding of science is not and should not be a one-way street. There are certain things the scientist can and should be doing. Remember it is the layman taxpayer's money that is being spent. He is the same person who elects public officials to do his bidding under our system of government. He is not going to let his officials spend generously on science if: (a) He's convinced that nothing beneficial to society will come out of the work; or (b) he gets a notion that scientists as a group are hostile to his own conceptions of what the ideals and objectives of our country should be.

Let me explain that last point: the average American doesn't think very highly of draft dodgers. Should some politician take up the cause of draft dodgers, he would be dealt with quite harshly at the next election. The average American doesn't think very highly, either, of scientists who decide that their government is misusing science and technology and refuse to work on defense projects. This is particularly so when they publicize themselves by calling a work stoppage as some of them recently did at MIT.

Fortunately for the scientific community, Dr. Jack Uretsky at the Argonne National Laboratory organized a "Federation of Responsible Scientists" and scheduled a 16-hour work-in on March 4 to counter the MIT militants' publicity.

This takes us back to the speech I made at the Neutron Cross Section Conference just a year ago¹ when I said PE = PM -- Public Esteem equals Public Money -- and urged the scientific community to consciously rekindle the public's former affection for science and scientists. I pointed out that the real world and its environment in which science must compete for public funds is both troubled and highly competitive. The speech also included some practical public relations suggestions among which were:

First, that the science community take greater pains to make clear that its efforts contribute directly and indirectly to progress benefiting every man, woman and child in the country. The public may not buy science for science's sake-so sell it to them for their own sakes.

Second, the public should be reminded ceaselessly by scientists of their vital contributions to national security because there is no function in government for which taxpayers more willingly approve expenditures. And, tonight I'll add the converse to that, namely, individual scientists, like those at MIT, are free to express their personal political views but in the interests of their profession they should carefully refrain from doing so in any context which may cause public concern over the patriotism or dedication of the scientific community as a whole.

My remarks at the Neutron Cross Section meeting also recommended that any future proposal for large and expensive new scientific facilities be developed creatively to include features calculated to maximize their public acceptance. These considerations and administrative set-ups would include siting, facilitating broad regional uses, as well as technical features promising stretch, versatility and operational economy. I felt these suggestions were good a year ago under a Democratic Administration and I feel that they are equally applicable today under a Republican Administration. I am particularly hopeful that they may serve to rekindle the old love affair between science and government, the synergistic characteristics of which proved so bountiful.

As a further contribution toward that objective, I am hopeful that on the government side we can respond by reforming the AEC's budgeting procedures to insulate activities it carries on as patriarch of the atom from the more basic scientific programs it conducts as executive agent for the entire Federal government.

High energy physics serves as a particularly pertinent illustration of what I mean. The big accelerators are basically pure research tools, contributing generally to the nation's fund of knowledge, but not particularly to the AEC's dayto-day requirements. Both their capital and their operating costs have escalated severely. Yet the high energy program must face an annual intramural contest for funding beneath the Commission's 2-2-1/2 billion budget ceiling. The contest is not only with the other basic scientific programs but with the diffusion plants, the special weapons and nuclear submarines and every other AEC activity.

This does not make sense. The AEC's activities as an executive agent for programs of general national interest should be funded according to the priorities of the nation, not according to priorities within the Commission. We need two separate and non-competing budgets for AEC's two totally separate functions and I am working toward getting them.

In the high energy physics case, the Joint Committee has been discussing the problem with the AEC Controller and other officials for some months now and we believe there are no insurmountable obstacles to keeping different sets of books and submitting, in effect, two budgets-one for high energy physics and another for the other programs. I can predict with some confidence that AEC's authorization bill for FY 1970 as reported by the Committee will contain for the

¹Reprinted in <u>Physics Today</u>, Volume 21, No. 6, June 1968, p. 23.

first time a separate new title under the heading "High Energy Physics."

In closing let me say that I greatly enjoyed sharing this evening with you. I had hoped to say a few words about some of the exciting new developments on the particle accelerator horizon, but perhaps it is just as well I didn't. Undoubtedly such intriguing and technical subjects are being chronicled more knowledgeably by the stellar international roster of participants in this Conference. Thank you.

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