

[Shri Jaganatha Rao]

some Members who have made a request
(Interruptions)

SHRI S. S. KOTHARI : Please listen to me.

SHRI PREM CHAND VERMA rose—

MR. DEPUTY-SPEAKER : Let him complete his reply. If you are not satisfied and if time permits, I will permit you.

SHRI N. S. SHARMA : Please give me five minutes.

MR. DEPUTY-SPEAKER : I have got to complete this Ministry by 5.15.

SHRI JAGANATHA RAO : I have purchased furniture and supplied to some M.Ps. The requests of other M.Ps. are with me. I have asked the Finance Ministry to sanction me Rs. 4 lakhs. I will supply furniture to any M.P. who has made a request.

I am prepared to do that. I quite realise that if the furniture is old something can be done. Shri Fernandes wrote to me and I gave him some new furniture. I will do what best I can in these matters. In respect of any specific points made by hon. Members which I have not replied to, I will write to them about those specific points made and not about general points.

श्री प्रेम चन्द वर्मा : उपाध्यक्ष महोदय, मैंने जो कहा है, उसका जवाब नहीं दिया गया है। मैं चाहता हूँ कि प्रधान मन्त्री जी खुद इस बात को देखें कि जो जवाब दिये गये हैं वह किस तरह के जवाब दिये गये हैं। हम चाहते हैं कि हमने जितने इलजाम लगाये हैं उनको स्वयं प्रधान मन्त्री जी देखें, जरूरत हो तो हमसे पूछ भी लें और सदन के अन्दर उनपर रोशनी डालें।... (व्यवधान)...

MR. DEPUTY-SPEAKER : Let us conclude now. He has given an assurance that he will write individually to all the Members in respect of specific points made.

I will now put all the cut motions to the vote of the House.

All the cut motions were put and negatived.

MR. DEPUTY-SPEAKER : I shall now put the Demands to the vote of the House. The question is :

"That the respective sums not exceeding the amounts shown in the fourth column of the order paper, be granted to the President, to complete the sums necessary to defray the charges that will come in course of payment during the year ending the 31st day of March, 1969, in respect of the heads of demands entered in the second column thereof against Demands Nos. 84 to 88 and 131 to 133 relating to the Ministry of Works, Housing and Supply."

The motion was adopted.

17.14 hrs.

Department of Atomic Energy

MR. DEPUTY-SPEAKER : The House will now take up discussion and voting on Demand Nos. 89, 90 and 134 relating to the Department of Atomic Energy for which 1 hour has been allotted.

Hon. Members present in the House who are desirous of moving their cut motions may send slips to the Table within 10 minutes indicating the serial numbers of the cut motions they would like to move.

Demand No. 89—Department of Atomic Energy.

MR. DEPUTY-SPEAKER : Motion moved :

"That a sum not exceeding Rs. 25,19,000 be granted to the President to complete the sum necessary to defray the charges which will come in course of payment during the year ending the 31st day of March 1969, in respect of 'Department of Atomic Energy'."

Demand No. 90—Other Revenue Expenditure of the Department of Atomic Energy.

MR. DEPUTY-SPEAKER : Motion moved :

"That a sum not exceeding Rs. 14,02,54,000 be granted to the President to complete the sum necessary to defray the charges which will come in course of payment during the year ending the 31st day of March 1969, in respect of

'Other Revenue Expenditure of the Department of Atomic Energy'."

Demand No. 134—Capital Outlay of the Department of Atomic Energy.

MR. DEPUTY-SPEAKER : Motion moved :

"That a sum not exceeding Rs. 39,79,17,000 be granted to the President to complete the sum necessary to defray the charges which will come in course of payment during the year ending the 31st day of March 1969, in respect of 'Capital Outlay of the Department of Atomic Energy'."

SHRI S. S. KOTHARI (Mandsaur) : The draft of the nuclear non-proliferation treaty....

MR. DEPUTY-SPEAKER : May I point out that only one hour has been allowed for these Demands ? The hon. Member will get only five minutes.

SHRI S. S. KOTHARI : But I think there are only very few speakers.

MR. DEPUTY-SPEAKER : He need not anticipate that. I have before me a list which contains a number of names.

SHRI TENNETI VISWANATHAM (Visakhapatnam) : For atomic energy, do you have atomic time ?

SHRI S. S. KOTHARI : The draft of the nuclear non-proliferation treaty is a striking instance of how the two big powers in pursuance of their own national interests can pressurise other countries to sign on the dotted line in blatant disregard of the latters' interests with covert threats of cessation of aid in the nuclear and other fields. The treaty touches the high watermark in unethical and unjust dealings in the international sphere. What I would like to submit is that the big powers are not actually interested in disarmament. What they are interested in is to retain...

MR. DEPUTY-SPEAKER : May I point out that some relevance should be there ? This had been discussed in connec-

tion with the Ministry of External Affairs' Demands.

SHRI S. S. KOTHARI : Disarmament treaty is not relevant to atomic energy ?

MR. DEPUTY-SPEAKER : When the Demands of the External Affairs Ministry were discussed, this point was brought up and it was discussed threadbare. If he wants just to refer to it then it is all right. But if he is going to take a long time, then that would not be possible.

SHRI S. S. KOTHARI : I shall devote just one or two minutes only to that.

The position is that the nuclear powers would like to retain their monopoly and they would not allow the non-nuclear powers to use atomic energy to make nuclear tests even for peaceful purposes. The possession of nuclear weapons is more or less a status symbol in international politics today and this would mean that the non-nuclear powers would be consigned for all times to the status of second-rate nations.

I would like to emphasise that the Government of India have no right whatsoever to sign the nuclear non-proliferation treaty. They do not have the mandate and still if they do it, it would be a betrayal of faith of the people.

The question arises that in case Government do not sign it, there is a chance that aid may be reduced or aid may not be forthcoming in the nuclear or any other field, but to the extent that it promotes self-reliance, I think it is a blessing in disguise.

When Dr. Bhabha was alive, he had stated that probably within eighteen months, the country could manufacture and explode atomic devices. But it appears that we have slid back. Government do not come out with any clear statement, firstly whether we have the capacity to manufacture the bomb, and secondly whether we would like to do it and thirdly at what stage we would like to do it. I think that this is something about which they must make a clear statement.

[Shri S. S. Kothari]

It is said that the economic cost of manufacturing the bomb may be considerable. But I would submit that once the decision is taken, the cost would be overcome. There is no doubt whatsoever that this country has to go in for the manufacture of the bomb, because the power gap between China and India is increasing, and if the reports are correct, the Chinese have developed or will be able to develop within a short time a delivery system. The consequence would be that the power gap between India and China would increase still further.

17.18 hrs.

[Mr. Speaker in the Chair]

Now, I would like to say something about the electronics industry. This industry is in its infancy in this country and there is a vast gulf between the advanced and latest equipment produced in the USA and other countries and what we are producing. But in a way, despite the lethargy of Government in proceeding at a rapid speed in developing this industry, I would say that even this lethargy can be capitalised upon by the country by not going in for the various stages through which the other advanced countries have passed. It means that instead of trying to follow what they have done, we should adopt not the processes which have already become obsolescent but the latest technical processes developed in Western countries. If we do that, probably we shall be telescoping the time that has been spent by other countries, and that would result in the country covering the gap between ourselves and the advanced countries within a short time.

The Bhabha Committee on Electronics had indicated the feasibility of this country achieving self-sufficiency by 1967 with regard to the electronics instruments requirements. But it is observed that not only have we not achieved self-sufficiency, but as new atomic plants have been developed, probably here again the gap between the availability or what we manufacture by way of electronic instruments and our requirements would be considerable.

The Government have failed to implement the excellent recommendations of the Bhabha Committee on manufacture of

electronic equipments. The progress is slow and halting and I think it needs to be speeded up considerably.

I would like to emphasise two points. Firstly, the Atomic Energy Department should devote its attention to simultaneous development of a delivery system for nuclear weapons. You would say the bomb is not there, why worry about a delivery system? I would say we have got to prepare the groundwork, the framework for a delivery system, so that when we embark upon manufacture of bombs, the two things could go together. Otherwise manufacture of the bomb would take four to five years and then the completion of the delivery system would take another four or five years. So we have to make the preliminary research and other arrangements for developing a delivery system now. These two things should be synchronised.

Then there is the question of nuclear warheads which may prove to be tactical weapons in times to come. The again, some attention should be paid by Government.

We have been exporting a lot of uranium. I would like the AEC to make a proper assessment as to whether we can afford to deplete our resources of uranium. Or do they feel that our resources are unlimited and our own requirements would be met when the time comes in spite of these exports?

In 1954, we were ten years ahead of China in nuclear technology. I think it is a great indictment of the Atomic Energy Commission that today we are probably a decade or two behind China. If we do not take proper precautions or do not step up our activities in the correct manner, the consequence would be that this power gap between China and India would widen still further.

My last point is a delicate one. Still I feel I must make it. Our leading atomic scientist, I am told, believes in the principles of non-violence and he would like to confine the use of nuclear energy to peaceful purposes. If he is trying to make a virtue of necessity I have nothing to say. But if his idea is that the country should not go in for manufacture of atomic weapons I would respectfully submit to him that was never meant to be the intention.

of the apostle of non-violence. He should revise his ideas. Ambition, as Shakespeare said, should be made of sterner stuff. If he cannot deliver the goods, if he cannot rectify his own ideas, he must quit. But if he falls in line with the mood of the country and with public opinion, then I would be the first to honour him as a leading scientist.

MR. SPEAKER : We have only one hour for this discussion. Yesterday the Business Advisory Committee had reported on this. I would suggest to Members to be brief and to the point, mentioning only points.

SHRI CHINTAMANI PANIGRAHI (Bhubaneswar) : It is due to the great vision of Pandit Nehru that slowly and silently, almost without any gusto, we have entered the atomic age. We have now atomic power projects in Tarapore, in Rajasthan (Unit I and Unit II) and in Madras (Unit I). By October 1968, we are going to go have atomic energy flowing from the Tarapore power station. It will be a great day for us when within 16 years we have been able to make headway, and by 1973 we are going to have 1,000 MW of atomic energy. By 1973, we are going to make an investment of nearly Rs. 262.63 crores in atomic power projects.

But now it has been assessed that the cost of atomic energy per kilowatt in Tarapore comes only to 4.50 paise. If we can have atomic power projects of say 1,000 megawatts, I hope the cost will again be far less than this, and it will be cheaper. Keeping this in view, if the Government can have an agro-industrial complex in certain areas where atomic power plants are coming up, then, according to what I have calculated, with the use of atomic energy we will add to our production and we shall produce an additional quantity of five to seven million tons of foodgrains. I am glad that the Government have set up a cell to work out the agro-industrial complex, but we would like to know something as to the areas in which they want to develop this agro-industrial complex near the atomic power plants, now that this cell is working on it and making a

Secondly, we should also like to know to what extent we are becoming gradually self-sufficient in a sense ; of course, we cannot be so self-sufficient in the case of atomic energy, but in the case of the materials which are necessary and the knowhow, so that the indigenous knowhow and the materials can gradually reduce the import content in them from say, 60 to 75 per cent to about 30 per cent by 1973-75. We could try to see that the dependence on foreign imports is reduced to 30 per cent. We must have a phased programme for this and I would like to know whether the Government has any phased programme.

With regard to the establishment of atomic power plants, you know there are claims from Andhra Pradesh, Mysore, Gujarat and so on. We would like to know from the Government whether they have made sufficient surveys ahead so that when the question of new plants to be set up comes up, besides the existing four units, they could be located ; I want to know whether they have also selected the location of those places where the new power plants are proposed to be established and whether they want to have bigger atomic power plants so that our cost of production will be less than 4.50 paise or it may even come down to three or two paise.

With regard to the selection of places and the survey of the atomic minerals, I just want to bring to the notice of the hon. Prime Minister that recently there were surveys in some of the Orissa regions and I know that valuable atomic materials had been located. So, I just want to know what steps are being taken to follow up those surveys so that in the near future we shall utilise those resources which we are finding out.

Lastly, when we are depending on the natural uranium in our country, we would also like to be informed a little as to how far we are depending on our own natural uranium and not on plutonium, because we are gradually trying to make use of our own natural resources. So, I hope the progress and the stride that we are making in the field of atomic energy is good ; it is commendable and it really gives us a sense of confidence that within a period of only

[Shri Chintamani Panigrahi]

10 to 15 years we have almost reached the atomic age.

So far as non-proliferation treaty is concerned, I think it is not relevant here ; we are alert and the stand of the Government in this matter is quite in keeping with the opinion and the urge of the masses of the Indian people.

श्री जाजं फरनेन्डीच (बम्बई-दक्षिण) :

अध्यक्ष महोदय, यह तीन साल पहले की बात है जब मैं जिनेवा एक मीटिंग के सिलसिले में गया था। वहाँ पर एक विदेशी अणु वैज्ञानिक ने मुझ से कहा कि आप के मुल्क के बारे में सब कुछ बुरा है लेकिन यह जो आप के अणु वैज्ञानिक हैं यह दुनिया के सब से बड़े अणु वैज्ञानिकों के बीच में बैठ सकते हैं और यह बात खास तौर से नौजवान लोगों के बारे में लागू होती है।

अभी तीन, चार महीने पहले मैं ट्रौमवे ऐटॉमिक रिसर्च सेंटर में गया था। वहाँ पर मैं ने जाकर जो काम इत्यादि चल रहे थे उन्हें देखा। वाकई काफ़ी अच्छे वैज्ञानिक हमारे पास मौजूद हैं और वह अच्छे ढंग से काम भी कर रहे हैं लेकिन अफसोस इस बात का हुआ कि यह कैसी नालायक सरकार है कि इन वैज्ञानिकों को सुविधाएं सरकार से उन के हर एक कामों में बढ़ावा मिलने के लिए मिलनी चाहिए वह सुविधाएं यह सरकार नहीं दे पाती है। और ऐसे लोगों की शक्ति और ताकत को बरबाद करने का काम करते हैं। मैं उन लोगो की तस्ल्वाह के ऊपर आज नहीं बोल्गूंगा, हालांकि मैं इस बात को जानता हूँ कि ट्राम्बे ऐटॉमिक रिसर्च सेंटर के बगल में ही जो एसो और वर्मा शेल रिफाइनरीज हैं, जिन की यूनियनों का मैं सदर हूँ, वहाँ बाबू और मामूली कारकुनों को जो तस्ल्वाह मिलती है वह भाभा ऐटॉमिक रिसर्च सेंटर के बड़े अफसरों को भी नहीं मिलती है, और कर्मचारियों की बात तो छोड़ दीजिये, जिन के लिये सरकार कहती है बहुत मिलते हैं, हालांकि ऐसा कहना नहीं चाहिये क्योंकि इस

से बहुत नुक्सान होता है। ट्राम्बे में भी ऐसा होता है और वहाँ के कर्मचारियों को काफी परेशानी है और वह दिन ब दिन बढ़ती जा रही है। इस का नतीजा यह हो सकता है कि किसी दिन वहाँ भी ऐसी घटनायें घट जायें, जिस से काम चलने में मुश्किल और तकलीफ हो जाये।

तारापुर की बात आप को याद होगी। जिस तारापुर ऐटॉमिक रिएक्टर से अगले भक्तूबर से बिजली मिलने वाली है, वहाँ से हो सकता था कि तीन या चार महीने पहले बिजली मिल जाती, अगर सरकार ने और अमरीकी कम्पनी ने, जिस के हाथ में रिएक्टर बनाने का काम है, मजदूरों के सम्बन्ध में ऐसी नीति न अपनाई होती, जिस के कारण वहाँ दो महीने तक हड़ताल चलानी पड़ी, जिस से सरकार का काम बन्द हो गया और दस आदमी पुलिस के जुल्म के कारण मारे गये।

सरकार की अणु विज्ञान की सारी नीति के बारे में तो श्री पाणिग्रही बोल चुके हैं कि अगले तीन चार सालों में 200 या 225 करोड़ रु० इस घन्घे में लगाये जायेंगे, मैं तो केवल इतना बतला दूँ कि जिस ढंग से काम हो रहा है, उस से मेरे जैसा आदमी सन्तुष्ट नहीं हो सकता है, क्योंकि ऐसी कई योजनायें अमल में लाई जा सकती हैं जिन के लिये किसी खास विदेशी मुद्रा की जरूरत नहीं है। असल में वहाँ तो स्वदेशी मुद्रा ही लगाने की जरूरत है। आज एक बात तो सभी मानते हैं कि अगले पांच दस सालों में जितनी बिजली की जरूरत हम को होगी, अभी की बात तो छोड़ दीजिये, अगर वह पूरी करनी है तो वह अणु शक्ति का इस्तेमाल कर के ही मिल सकती है। थोरियम एक ऐसी चीज है जिस के बारे में कहा जाता है कि दुनिया के तमाम मुल्कों के जो थोरियम के रिसोर्सेज हैं, उन में 20 फीसदी सिर्फ हिन्दुस्तान में हैं और हमारा मुल्क इस मामले में सबसे बड़ा है। जहाँ न पानी का इस्तेमाल कर के न

कोयले का इस्तेमाल कर के आप बिजली बनाने का काम कर सकते हैं, ऐसे क्षेत्रों में खास तौर पर उत्तरी पूर्वी इलाके में, उत्तर प्रदेश और बिहार के इलाकों में, जहाँ ऐटमिक पावर स्टेशन बनाने में भारत सरकार को कोई विदेशी मुद्रा खर्च नहीं करनी है, मैं समझ नहीं पा रहा हूँ कि क्यों सरकार उस के बारे अपनी नीति बनाने का काम नहीं कर रही है। जहाँ पर पांच-दस सालों में 200-250 करोड़ रुपया लगाने की बात है, वहाँ के लिये मैं इतना ही याद करा दूँ कि जितने इनकम टैक्स की चोरी होती है, अगर वही पैसा ऐटमिक पावर स्टेशन बनाने के काम में लगाया जाय तो कई भ्रष्ट जो हम आज महसूस कर रहे हैं बिजली का उत्पादन करने में, उस को दूर करने में हम को कामयाबी जरूर मिल जाये।

एक बात मुझे खास तौर से बम्बई के बारे में कहनी है। कुछ दिन पहले कोयना में भूकम्प हुआ। आज बम्बई शहर की जो बिजली है तथा महाराष्ट्र के काफी हिस्से की बिजली कोयना से आती है। अगर कोयना का भूकम्प वाला मामला चलता रहा, इस इलाके के लिए सरकार ने एक वाणिग सिस्टम बनाया है, अगर वहाँ भूकम्प आ जाय और वहाँ पर जो डैम बनाया गया है, वह टूट जाय तो लाखों लोगों के मरने की गुंजाइश हो सकती है। वह लोग न मर जायें इस के लिए यह वाणिग सिस्टम बनाने की व्यवस्था की गई है। मेरा कहना यह है कि कोयना की बिजली के बारे में, आज लोगों के मन में शक पैदा हो गया है कि यह बांध रहेगा या टूट जायेगा, वहाँ से बिजली मिलेगी या नहीं मिलेगी बम्बई शहर का जीवन आप जानते है। अगर बिजली बन्द हो जाय तो लोगों को घर में बत्ती मिलेगी या नहीं यह प्रश्न नहीं है, प्रश्न यह है कि प्रत्येक दिन वहाँ पर जो 2 या 2 1/2 करोड़ रुपयों का उत्पादन होता है एक शहर के अन्दर ही वह घट जायेगा। अगर बम्बई के बाहर का, पूरे महाराष्ट्र का उत्पादन आप जोड़ेंगे तो वह

और भी ज्यादा हो जायेगा। बम्बई शहर के अन्दर जो उत्पादन घटने की परिस्थिति आ जायेगी, और सुरक्षा के मामले में जो कई प्रश्न खड़े हो जायेंगे, उन को मद्दे नजर रख कर मेरा यह सुझाव है कि बम्बई के बारे में एक अलग पावर स्टेशन बनाने के विषय में तत्काल सोचा जाय। मैं इस बात को मानता हूँ कि बम्बई शहर के अन्दर ऐटमिक पावर स्टेशन नहीं बन सकता है, और तारापुर की जो बिजली पैदा होगी उस का इस्तेमाल आधा महाराष्ट्र के लिए किया जायेगा और आधा गुजरात के लिये किया जायेगा। मैं खास तौर से बम्बई के बारे में कह रहा हूँ कि शहर के नजदीक आस पास छोटे छोटे द्वीप हैं, उन में से किसी द्वीप पर पावर स्टेशन बनाया जा सकता जैसे आज अमरीका में यह चीज हो रही है सैनफ्रैसिस्को में या लासऐंजिल्स में ऐटमिक रिसेक्टर बन रहे हैं, वैसे अगर यहाँ पर ऐटमिक पावर स्टेशन से बड़े बड़े शहरों को बिजली मिल जाये और साथ-साथ समुद्र के पानी को इस्तेमाल कर के जब बिजली बनाने का काम होगा तब समुद्र के पानी को साफ कर के, उस में से जो नमक का हिस्सा है उस को हटा कर शहर के लोगों को पीने के लिये दिया जा सकता है। आज अमरीका में लोग इस काम में लगे हुए हैं। जब हम मानते हैं कि ऐटमिक विज्ञान में हम लोग दुनिया के किसी मुल्क से पीछे नहीं हैं, और यह हम लोगों के ही मानने की बात नहीं है, दुनिया के लोग मानते हैं तब क्या इतने नालायक हैं हमारे वैज्ञानिक कि हम इतनी सुविधा भी नहीं दे सकते हैं बम्बई जैसे शहर को या मद्रास जैसे शहर को। मैं खास तौर पर बम्बई शहर के बारे में कह रहा हूँ कि कोयना की बिजली के बन्द होने का डर है। इस लिये बम्बई शहर के लिये एक पावर स्टेशन तो देना ही चाहिये। ऐसा पावर स्टेशन जो नमक के पानी में नमक को हटा कर पानी को साफ कर ले, वह बम्बई शहर में बनाया जाय ताकि लोगों

[श्री जार्जफरेन्डीज]

के लिए पानी की जो तकलीफ है वह खत्म हो जाय और सब को सुविधा हो जाये। यह ठोस सुझाव मैं सरकार के सामने पेश करना चाहता हूँ।

श्री मनुभाई पटेल (डभोई) : अध्यक्ष महोदय, गत 11 सालों में भारत सरकार की अणुशक्ति की नीति के बारे में बहुत स्पष्टता रही, और पंडित जवाहरलाल नेहरू ने इस बारे में एक कार्यक्रम देश के अन्दर रक्खा। जैसे अन्तर्राष्ट्रीय नीति के बारे में शांतिपूर्ण सह-अस्तित्व है उसी तरह से अणुशक्ति के बारे में भी हमारी शांतिपूर्ण और सुसंगठित नीति रही है। अणुशक्ति के शांतिपूर्ण उपयोग की वजह से ही भारत की अणुशक्ति की प्रगति हो रही है। 11 सालों के दर्पान विश्व की अणुशक्ति परिषद के अन्दर हमारे भारत का प्रतिनिधि बैठता है इतना ही नहीं, वह गर्वाणुग बाड़ी में भी बैठ सकता है, इतनी प्रगति हम ने की है। वह इस बात का सबूत है कि सरकार ने शुरू से आगे की बात को देख कर इस को सपोर्ट दिया और आगे की प्रवृत्ति को चालू किया।

आज विश्व में अणुशक्ति के शांतिपूर्ण उपयोग के बारे में भारत का स्थान ठीक बना है इस लिये नालायक सरकार है या जो लोग या पार्टियां उन वैज्ञानिकों की हड़ताल चलाने की कोशिश करते हैं जो कि अणुशक्ति के उपयोग के लिये काम करते हैं, वह नालायक हैं, वह देश को सोचना चाहिये।

देश में अणुशक्ति को आगे बढ़ाने के लिये बंडित जी ने एलान किया था और ऐटमिक एनर्जी कमीशन नियुक्त किया, जिस ने कि इतना अच्छा काम किया है। मैं सारी बातों में नहीं जाऊंगा क्योंकि समय बहुत कम है, लेकिन अणुशक्ति के अन्तर्गत पब्लिक सेक्टर में जो काम हुआ है, अर्थात् एलेक्ट्रानिक्स कारपोरेशन, इंडियन रेअर ग्रुप्स लिमिटेड, और यूरेनियम कारपोरेशन, उन के बारे में जरूर कुछ कहना चाहता हूँ। साथ ही एबो इंडियन

काम्प्लेक्स के बारे में जो ठोस कदम उठाये गये हैं, उन के बारे में भी कहना चाहूंगा।

एलेक्ट्रानिक्स कारपोरेशन अप्रैल, 1967 में 10 करोड़ रुपये के इन्वेस्टमेंट से शुरू हुआ कामर्सल स्केल प्रोडक्शन आफ एलेक्ट्रानिक इंस्ट्रूमेंट्स पैदा करने के लिये। वहां पर ट्रैन्जिस्टर्स, रेजिस्टर्स, कपेसिटर्स और न्यूक्लियर इंस्ट्रूमेंट्स फार मेडिकल, ऐग्रीकल्चरल, इंडस्ट्रियल और रिसर्च परपोज़ के लिये बन रहे हैं। अभी एक डिवीजन का काम शुरू हुआ है। जब उन में 1970 में जब प्रोडक्शन शुरू होगा तब 3.5 करोड़ रुपये के सालाना इंस्ट्रूमेंट्स बनेंगे, फैब्रिकेशन आफ इंस्ट्रूमेंट्स पर अभी 12.9 लाख रुपये खर्च किये गये हैं, जिस के लिये यदि फारेन एक्स्चेन्ज खर्च करना होता तो कम से कम 20 लाख रु. लगते। इतने में उन्होंने बहुत अच्छा काम किया है। मरीन नैविगेशनल रेडार्स, रेडार स्टिमुलेटर, मेडिकल एलेक्ट्रानिक यूनिट्स, पोटेंबल सर्वे मीटर्स वगैरह के जो इन्विपमेंट पैदा होंगे उन से आप बड़ा काम कर सकेंगे।

एलेक्ट्रानिक्स के बारे में एलेक्ट्रानिक्स कमीशन ने जो रिपोर्ट दी है उस में कहा गया था कि हिन्दुस्तान में अगले दस सालों में 1650 करोड़ रुपये का इन्विपमेंट चाहिये लेकिन पैदा हम कितना करते हैं? हर साल 26 करोड़ रु. का इन्विपमेंट पैदा करते हैं। आगे का जो जमाना आ रहा है उस में हम को ऐटमिक एनर्जी और न्यूक्लियर एनर्जी को हारनेस कर के देश की औद्योगिक समस्या का हल करने के लिये उस का शांतिपूर्ण रूप से सदुपयोग करना है। जो जमाना आ रहा है उस में एलेक्ट्रानिक्स का बहुत बड़ा काम होगा। इसलिये पब्लिक सेक्टर में एलेक्ट्रानिक्स कारपोरेशन ने जो काम शुरू किया है वह बड़ी तारीफ के लायक है।

इंडियन रेयर ग्रुप्स लिमिटेड ने भी बहुत अच्छा काम किया है, जो कि तारीफ के लायक

है। 1966-67 में उस ने 1 करोड़ रुपये का फारेन एक्सचेंज अर्न किया है, उस का ग्रास प्राफिट 40 लाख रुपये था, उस ने 8 परसेंट डिबिडेंड डिव्लेयर किया और उस का टर्न-ओवर 168 लाख रुपये था। इस कम्पनी ने स्टाइल और मारनेट का उत्पादन किया, जिस में से लोकल कनज्यूमर्स को 600 टन स्टाइल बेचा गया, ट्रायल के तौर पर जापान को 30 टन गारनेट भेजा गया और इसी प्रकार 1000 टन जिरकोन भी जापान को भेजा गया।

मिनरल सैंड इंडस्ट्री ने 1965 में मेसर्स ट्राव्कोर मिनरल्स लिमिटेड के एसेट्स लिये और साथ ही मेसर्स हापकिन्ज एंड विलियम्स (ट्राव्कोर) लिमिटेड के एसेट्स भी ले लिये। इस कम्पनी ने आलवे प्लांट की कैपेसिटी को एक्सपेंड किया और मोनाज़ाइट को 600 टन की अतिरिक्त क्वांटिटी को ट्रीट कर के प्लांट की कैपेसिटी को 3000 टन प्रति-वर्ष तक बढ़ा दिया। इस एक्सपेंशन से 720 टन रेयर अर्थ्स क्लोराइड, 850 टन ट्रिसोडियम फास्फेट और लगभग 100 टन थोरियम हाइड्रोक्साइड का अतिरिक्त उत्पादन होगा।

चावरा (केरल स्टेट) में मिनरल सैंड इंडस्ट्री को रीस्टार्ट करने की सम्भावना की जांच की गई थी। वहां पर 650 टन प्रति-दिन रा सैंड को ट्रीट करने की दृष्टि से एक प्लांट लमाया जा रहा है। इस प्लांट में और भी बहुत सी चीजें पैदा होंगी।

इसी प्रकार युरेनियम कार्पोरेशन आफ इंडिया ने भी बहुत तरक्की की है।

हमारे देश में एथ्रो-इंडस्ट्रियल काम्प्लेक्स का बहुत बड़ा पोटेंशल, शक्यता है। जैसा कि आप जानते हैं, हमारे यहां हाइड्रल और थर्मल पावर बहुत मंहंगी है और इस लिए हम उस को एथ्रो-इंडस्ट्रियल काम्प्लेक्स में आसानी से इस्तेमाल नहीं कर सकते। दूसरे देशों में पावर के उत्पादन पर जो खर्च किया जाता है, हम

उस से दुगना खर्च करते हैं, लेकिन फिर भी हम उस को पर्याप्त मात्रा में नहीं दे सकते हैं। हमारे देश में इस की बड़ी शक्यता है। एथ्रो-इंडस्ट्रियल काम्प्लेक्स में सल्फर-वेस से फर्टिलाइजर पैदा होता है, लेकिन दुनिया में सल्फर की शार्टेज है। इस लिए न्युक्लियर एनर्जी से इलेक्ट्रिकल वाटर पैदा कर के, फासफोरस पैदा कर के, हम अपनी फर्टिलाइजर इंडस्ट्री को बहुत आगे ले जा सकते हैं।

जब हम ने न्युक्लियर और सोलर पावर से इतना बड़ा एथ्रो-इंडस्ट्रियल काम्प्लेक्स डेवलप करना है, तो फिर गुजरात सरकार की ओर से टाटा फर्टिलाइजर प्राजेक्ट के बारे में केन्द्रीय सरकार के पास जो प्रोजेजल आया है, उस में क्यों डीले की जा रही है, यह मेरी समझ में नहीं आता है। हम सी, सन और एटम के असीमित साधनों को हारनेस कर के, ओक्सा-मंडल की ऐरिड लैंड्स का इस्तेमाल कर के और उस के ग्रास-पास पाए जाने वाले मिनरल डिपॉजिट्स का उपयोग कर के अपने देश में एक बड़ा एथ्रो-इंडस्ट्रियल काम्प्लेक्स खड़ा कर सकते हैं। प्लानिंग कमीशन और पेट्रोलियम मिनिस्ट्री इस बारे में इतनी डीले क्यों कर रहे हैं?

प्रधान मंत्री जी से मेरी प्रार्थना है कि वह इस बारे में विचार करें और इस योजना को एक्सीड्राइट करने की कोशिश करें।

अन्त में मैं यह कहना चाहता हूँ कि जिन लोगों ने एटामिक एनर्जी कमीशन के काम को आगे बढ़ाया है, उन को धन्यवाद देना चाहिए। खास तौर पर स्वर्गीय डा० भाभा, जिन्होंने इस देश में इस काम की बुनियाद रखी, और आज-कल डा० विक्रम साराभाई और अन्य नौजवान, जो इस काम को आगे बढ़ा रहे हैं, वे सब तारीफ के लायक हैं। श्री जार्ज फर्नेन्डीज ने कहा है कि यह सरकार नालायक है। यह सरकार नालायक नहीं है, बल्कि जो लोग काम में रोड़े अटकाते हैं, वे नालायक हैं।

SHRI C. K. CHAKRAPANI (Ponnani): Mr. Speaker, Sir, we have been spending crores of rupees every year on atomic energy and this year the Government has come forward with a Demand of Rs. 65 crores for atomic energy. Despite this huge expenditure, my complaint is, we have not been able to develop indigenous technology which is extremely important. We have not taken effective steps to become self-reliant.

My second point is that the super-powers are now forcing India to sign the non-proliferation treaty. I am opposed to it as it is. I want India to adopt a completely independent policy. It is high time that India adopted an independent policy in the matter of nuclear technology. It is true that technology cannot be developed in a day and technical help from outside will be necessary in the initial stage, but unless we take serious steps to encourage our scientists it will not be possible for our country to maintain self-respect in this regard.

The other point that I would like to make is that the policy of importing turn-key projects in the industrial sector is also superimposed in the atomic field.

Here is one glaring example. The construction and commissioning of Tarapur Atomic Power Station was entrusted to the General Electric Company of U.S.A. on a turn-key basis. As a result of this, our Indian engineers are affected. They cannot construct similar projects.

Another point that I would like to mention is that there is no wonder that foreign exchange components in our atomic technology programme is substantially high. This over-reliance on spoon-feeding has demoralised of nuclear intelligentsia and we have to see a sorrowful spectacle of brain drain from India.

Whatever may be the criticism of the Government about the nuclear developments in China, we should take note of the fact that within a short time the China has gone ahead of us and have developed their own technology and know-how. Even the U.S. Scientists have called these developments as spectacular and have praised them. We have to adopt an independent nuclear policy. In the Department of Atomic Energy, there is more

bureaucratism than scientific research. Genuine research is going in the background when we are preferring to live on borrowed technology. Therefore, despite existence of talented intellectuals, we have not been able to develop our own science.

Another point is that we are not in a position to maintain any secrecy in the nuclear development as everything is known to foreigners who constructed these projects for us. Though there is a stamp of 'Made in India' on these projects, in reality, they are made for India by others.

This servile attitude in the matter of development of nuclear technology must go if India is keen to emerge as a self-respecting nation in regard to nuclear energy.

✓ THE DEPUTY MINISTER (DR. SAROJINI MAHISHI): Mr. Speaker, Sir, I am thankful to you for giving me an opportunity to intervene in the debate. The Demands of the Atomic Energy have not been discussed by the House all these years. This is the first time that the Demands of the Department of Atomic Energy have come up for discussion in the House.

I hope the hon. Members will be able to appreciate the work done by the Department of Atomic Energy within a very short period due to the vision of Pandit Jawaharlal Nehru and late Dr. Bhabha. We have gone a very long way in the progress of our nuclear power and the use of this nuclear power for peaceful purposes also. I am not going to dwell here on the policy matters but I just want to give an idea as to how the Department of Atomic Energy is trying its level best to bring about peaceful results of these things to the people in our country.

The three power plants have been set up, one at Tarapur, second at Rana Pratap Sagar and the third at Kalpakam—the first one would be commissioned in October, 1968. Here, as the hon. Members have referred to, this was given as a turn-key contract to the General Electric Company of U.S.A. The second one has been done with the Canadian collaboration. The third one, at Madras, has been departmentally set up. This clearly goes to show the progress that the Commission has been making in this direction. In the first project, the imported content was to the tune

of something like 60 per cent ; in the second one, it was to the tune of 40 per cent and in the third one, it is hardly 20 per cent.

About the two types of equipment, nuclear and conventional, the greater part of the nuclear equipment is being manufactured and an industrial complex is being set up for the same purpose. But about the conventional equipment, that is, stainless steel and steel alloy, some of these things are to be imported. I hope, in course of time, self-sufficiency will be achieved in this respect also.

The cost of power in our country is high as compared with some developed countries. But then, of course, the main sources of power in our country are the hydro-electric units which are tied up at certain locations and they cannot be utilised for other purposes. If these power plants are set up which are capable of producing a very large quantity of power to the tune of something like 1000 MW, then there will be an agro-industrial complex round about and the feasibility of finding out an agro-industrial complex is being thought of by a special committee which has been appointed by the Atomic Energy Commission. Mr. James T. Ramey, the Commissioner of the Atomic Energy U.S.A. visited India and also discussed with his counterparts here. Our people also from the Atomic Energy Commission visited the Oakridge National Laboratory in U.S.A. and they are finding out the technological approach to the possibility of an agro-industrial complex round about.

The atomic energy plant need not be set up only on account of the need for power but it may be set up along with other industrial complexes also so that the needy organisations or the needy industrial centres may be round about.

For example, there is the fertiliser, the nitrogenous fertiliser can be produced with the help of ammonia which again is based on naphtha or it can be based on natural gas or it can be based on electrolysis of water. The first one may be costly; about the second one, naphtha may not be available at all places and about the third one electrolysis of water, that may be more useful and cheap also because the power is available at a very low price,

Therefore, when the three projects are commissioned, the power produced will, to a very great extent, be valuable in the setting up of industrial complex also. Now, about the fuel that is essential for these things, there is a lot of improvement and I would like to bring out to the notice of the members. The enriched plutonium that was being utilised in Tarapur is being substituted by uranium in the other projects and the uranium ore is processed at Jaduguda. There is a Corporation that has been set up for this purpose and the capacity of that is estimated as something like a thousand tonnes of ore per day, and there is a mill also that will process, and further processing of that into the fuel complex will be done at Hyderabad, which has got a fabrication facility for the fuel complex consisting of an uranium oxide plant, an enriched uranium oxide plant, and a number of other things.

There are two types of expenditure : one is the capital outlay and the other is on account of the revenues for the recurring expenditure also.

The township at Trombay, the housing colony at Hyderabad and construction of a few laboratories—all these are fast progressing.

The members will be surprised to know that atomic energy is being used in a number of fields. Sometime back, I had the opportunity of answering a question that it is being used for agricultural also, for boosting up agriculture, and for preservation of food also. Therefore, I would like to say that now many States have gone to make experiments in these, including Kerala, Madras, Maharashtra, Mysore and others, and many States are showing more interest, because the groundnuts produced with the help of irradiated seeds are capable of yielding 30 per cent more oil than the ordinary groundnut seeds. The irradiated seeds may not be available in a very large quantity at present, but in course of time, they will be multiplied, and I hope, the country will be able to have more agricultural produce, and with the industrial complexes coming around the nuclear reactors, there will be an increase to the extent of 7 to 8 million tonnes in agricultural produce. Of course, all of us are awaiting better results in these things,

[Dr. Sarojini Mahishi]

Besides this, there are public sector industries that have been undertaken by the Atomic Energy Commission—there is the Uranium Corporation, there is the Electronics Corporation at Hyderabad, and there is also the Rare Earths Limited in Kerala, wherein the valuable sands, which contain minerals, are being extracted. As my hon. friends said, the thorium extract is very very valuable, and not only in Kerala but also in some other parts of the country, in Bihar and in some parts of Bengal also, thorium deposits are being detected, and an effort is being made by the special committee that is going into this thing to find out the rich minerals that are hidden in the monazites of the sand.

In addition to this, the Atomic Energy Commission has taken up a number of other activities also. I am just referring to the particular thing that he has mentioned, about the earth quake at Koyna. The seismic array centre at Gouribidanur in Mysore State is making so many efforts to find out the intensity and the depth of the earth-quake and whether it will be possible to give any warning before the earth-quake occurs. So also, in the case of cyclones, they are making very valuable researches to find out whether any warning can be given before the cyclone actually takes place, so that certain lives can be saved and properties also can be saved. Experiments are being made in that, and that is the strongest seismic array centre in the whole country, perhaps in many of the countries taken together also.

I am extremely happy to say that the Atomic Energy Commission is doing so much of work not only in this but also in space research wherein we are collaborating with so many other countries and the results of the research are being utilised by the other countries; the researches made therein are also being taken advantage of by our country. Therefore, India is contributing in the international field to space research and these things. The Thumba Rocket-Launching Station has been able to launch a series of Rohini rockets, and Centaure rockets are also being manufactured; the first batch is going to be released by the end of 1968.

So, Members can easily see the progress that is being achieved by the Atomic Energy Commission.

I am sure that Members would not be satisfied with anything short of the atom bomb. But that being a policy matter which must have been dealt with and which would be dealt with by the Prime Minister who is going to deal with some of these matters, I would conclude now by thanking you for the time that you have given to me.

SHRI N. K. SOMANI (Nagaur) : We are naturally concerned with what is about to be a historic document to be signed, which is called the nuclear non-proliferation treaty. I can quite understand that the hon. Prime Minister can choose to ignore the warnings given by Rajaji. I know that she has no time to read or listen to some of the advice that he gives. I can also understand the rather forceful statements made by Dr. Vikram Sarabhai that at no cost shall we ever sign this treaty. But I think the Government of India should do some reconsideration on this matter, especially in view of the fact that our big brother Soviet Russia just the other day also forcefully suggested to us that we should get into the comity of nations and try and influence the future decisions in respect of this. Therefore, I sincerely hope that we shall listen to this advice and weigh the pros and cons of this treaty before turning it down abruptly.

The second brief point that I wish to make is that if we have to develop ourselves technologically we shall have to give the utmost respect and attention to and make adequate provision for the development of electronics and atomic energy and the scientific temper in this country. From what little I know, it is unfortunate that some of our best scientists and some of our best talents have had to go out of India. Intelligent students and intelligent young people have had to go out of India in search of jobs. A few months ago I was a witness to a very unfortunate episode when a brilliant lady, a young scientist who had done her Master's degree in electronics from an IIT in India after hunting for a job for about twelve months and taking up a clerk's job in a radio manufacturing concern had to go to Canada where she was given a worth-while job. Therefore, we must have some concern for the development of indigenous talent as far as this field is concerned. We have still not for-

gotten the tragic suicide of Dr. Joseph of Pusa Institute. I hope the Prime Minister will look into the working conditions and the job opportunities and the development of indigenous research not only in atomic energy but in all other allied fields.

In regard to the uses of atomic energy, very little research has been done indigenously in this country from the point of view of both pure and applied research. Therefore, I hope that progressively more and more attention would be given to this and more and more talent would be utilised in this.

The last point that I wish to make is that unfortunately—and this is based on my informal discussions with some people who ought to know about this—that the progress of implementation of the Bhabha Committee report has been inadequate. In this matter, apart from our defence requirements, our industrial requirements and the other technological advances demand that this report should be implemented *in toto* and progress should be made so that the hope that the country would become self-reliant by 1975 would materialise.

I would just quote two lines from the Bhabha Committee report. At page 18, the committee has said.

"The value of the electronic equipment required over the next ten years has been assessed in this report at Rs. 1650 crores at today's prices."

So, we have to do escalation of the prices now in the value of the electronic equipment in view of increase in costs which is today being produced in India is approximately Rs. 26 crores per annum. This shows the vast gap that exists between the availability of the electronic components and spare parts and capital equipment and what we ought to do because of the meritorious work done by the late Dr. Bhabha. I would therefore urge that since it is not possible for Government alone to deliver the goods, the utmost co-operation of the private sector should be had in this matter.

18.00 hrs.

SHRI D. C. SHARMA (Gurdaspur) :
I pay my humble tribute to Pandit Jawa-

harlal Nehru who ushered us into this atomic age. I also give my grateful thanks to Dr. Homi Bhabha who was a scientist of international reputation.

When we discuss our Atomic Energy Department, I cannot help saying that the money that we are allotting for it is very very meagre, small and limited. Here Members have been asking for this thing and that. There is no doubt we need all those things. But they forget that 81 million francs are being spent on this development by France. They also forget what China is spending on that. Therefore, whether we have to stint on some other activities of our country or not, we must find a greater amount of money for atomic energy development and development of electronics. Atomic energy and electronic mean modernity and modern India. As has been said by an hon. friend just now, we are producing very little of electronic equipments and we spend very little money on the atomic energy establishments. I think India cannot hope to progress very far without these two. There is no doubt that after the sad, unfortunate and tragic demise of Pandit Nehru, the pace of development of atomic energy has slowed down. Anybody who thinks that it is all rosy in this garden will not be true to himself. At least I will not be true to myself if I said that. Therefore, I say we have not gone ahead as well as we did when Pandit Nehru was alive. Hence something has got to be done to step up the processes that are there in the atomic energy establishments in order to accelerate and complete all these atomic energy stations, in order to put a little more life, vitality and energy into these corporations, that we have built up. We have made Rs. 40 lakhs out of these corporations and we made so much of these corporations. These corporations are something like the landed estates that we used to have at one time. These corporations are not always working for the advantage of the country. These corporations have yet to be weighed in the balance and tried. I think we should try and have a second look at these corporations and strengthen them so that they can give the best results.

I have great hopes in the Thumba Rocket Launching Station. I read about

[Shri D. C. Sharma]

space research in every country in the world. Only this morning I was reading about an agreement the British Government have signed with the Soviet Government on some space research. Everyday I read about it. I wish that the Thumba station should not remain only a kind of showpiece : It should become a real launching centre for rockets, and we should build rockets of our own of all types.

I do not want to go into the non-proliferation treaty because I have already said something on that earlier. But I respectfully submit that the Thumba Rocket Launching Station should be strengthened. It should be made a real centre for the manufacture of rockets.

Then, I want to say this : we are having an Asian Bank and its meeting was attended by our Deputy Prime Minister. We are having an ECAFE. We are having all kinds of such bodies for collaboration with other countries. I know we can have the good certificates from Russia and we can have the testimonials sent from the U.S.A. We have them and we welcome them. But I would suggest that we should build up an Asian Commission for Nuclear Research. In that, I think we should involve at least Japan. There are three types of countries in this world today : they are, the nuclear haves like France, USA and the USSR ; then there are so many nuclear have-nots. But we are nuclear "able to have." That is the third category, and I would say that that the third category should become the first category. The potential should become actual some day and that can happen only if we have some kind of Asian Nuclear Research Centre.

SHRI V. KRISHNAMOORTHY (Cudalore) : The country is like you.

SHRI D. C. SHARMA : The country is not like me ; it is like you, and you are always shouting.

Sir, I submit that as long as Dr. Bhabha was alive, the universities were associated with the work of nuclear research and physics. These research centres were co-ordinated with the universities. But I am sorry that the universities now are like children who are not cared for and the universities are neglected in this matter.

I would, therefore, suggest that the universities should also be co-ordinated with this work and be given a chance to work with the atomic research experiments. With these few words, I support the Demands for Grants.

SHRI SAMAR GUHA (Contai) : Sir, our civilisation has entered a new horizon, a dreamland of nuclear age. When human genius caught hold of fire energy our civilisation started ; they rose in a slow pace horizontally. Just two centuries back when James Watt discovered the steam-engine, there was just a little bit of elevation in civilisation in an inclined way, but now....

MR. SPEAKER : Five minutes.

SHRI SAMAR GUHA : Only five minutes ? Then I refuse to speak. At the Business Advisory Committee, you were gracious enough to give us half an hour's time. After 10 years, this is the first time that I get an opportunity.

MR. SPEAKER : I can give you another five minutes. Please hear me. I can give you another five minutes.

SHRI SAMAR GUHA : I can stop now. You said we would have half an hour.

MR. SPEAKER : You can have another five minutes ; not half-an-hour. There is a half-hour discussion coming up.

SHRI SAMAR GUHA : At the Business Advisory Committee, you said we will have half-an-hour.

MR. SPEAKER : Then, is it the pleasure of the House that the half-hour discussion...

AN HON. MEMBER : No.

SHRI SAMAR GUHA : The nuclear policy of this Government is like the *Asurya Sparsa Naree*.

MR. SPEAKER : We have an half-hour discussion at 6.30. Other Members had only five to seven minutes each. I can give you another five minutes. If you want half-an-hour, that will be out of the question. The hon. Prime Minister.

SHRI SAMAR GUHA : Then, as a protest, I go out. For the last two years they are denying my questions ; they are shelving my questions. Theirs is like the *Asurya Sparsa Narce* policy. The nuclear policy, as it is at present, is like that. You promised me that you would give half-an-hour. Now you say that I will have five minutes. Is it just ? I refuse to speak.

MR. SPEAKER : If you want, you can put your questions.

SHRI SAMAR GUHA : I refuse and as a protest I walk out.

(*Shri Samar Guha then left the House*)

MR. SPEAKER : The hon. Prime Minister.

THE PRIME MINISTER, MINISTER OF ATOMIC ENERGY, MINISTER OF PLANNING AND MINISTER OF EXTERNAL AFFAIRS (SHRIMATI INDIRA GANDHI) : Mr. Speaker, Sir, nobody has really spoken on the cut motions. I do not know whether you want me to deal with them.

MR. SPEAKER : As you please. No cut motion has been moved. You can reply to the debate.

SHRIMATI INDIRA GANDHI : Then I will leave the cut motions.

One of the points made firstly was about electronics. It is a very important subject, but actually it does not come under this department at all, except for the Electronics Corporation at Hyderabad, which was just started last year and which will produce goods worth over Rs. 75 lakhs in one year.

The Government is very much concerned with what is called brain drain which my hon. friend opposite referred to and we are trying to do whatever we can to see that we are able to help our brilliant young scientists. But unfortunately, we cannot afford the type of opportunities that are available in the USA, Canada and so on. We are looking at this and we are in touch with a number of them. As the hon. Member knows, it is not only us, but even advanced countries like the U.K. who are facing this problem in a very big way.

One hon. member has urged an alteration of our policy to utilise atomic energy for peaceful purposes. This is a matter on which I have spoken at length in reply to questions and on other occasions also. But because it is very important and reference is made to it time and again, I would like to say a few words on it. I would like to assure the hon. Member opposite that whatever policy the Government follows, has nothing to do with whether the particular scientist believes in non-violence or not. That is his private business. If he is in charge of a programme like this, he has to follow whatever is the policy of the Government. And, that policy is framed after due consideration of the national interest, specifically with regard to national security. I can assure the House that Government regards this as of paramount importance and this policy as well as all policies bearing on security, are kept under constant review. But we do feel that the events of the last twenty years clearly show that the possession of nuclear weapons have not given any military advantage in situations of bitter armed conflict which have sometimes taken place between nations possessing nuclear weapons and those who do not possess them.

We think that nuclear weapons are no substitute for military preparedness, involving conventional weapons. The choice before us involves not only the question of making a few atom bombs, but of engaging in an arms race with sophisticated nuclear war-heads and an effective missile delivery system. Such a course, I do not think would strengthen national security. On the other hand, it may well endanger our internal security by imposing a very heavy economic burden which would be in addition to the present expenditure on defence. Nothing will better serve the interests of those who are hostile to us than for us to lose our sense of perspective and to undertake measures which would undermine the basic progress of the country. We believe that to be militarily strong, it is necessary to be economically and industrially strong. Our programme of atomic energy development for peaceful purposes is related to the real needs of our economy and would be effectively geared to this end. In the pursuit of this programme, our brilliant scientists are getting the opportunity to

[Shrimati Indira Gandhi]

acquire the latest knowhow and technical skills in the entire field of atomic energy.

I feel that we can be rightly proud that in atomic energy matters as the hon. Member opposite has mentioned, this nation is regarded as one of the advanced nations.

The attainment of self-sufficiency is one of the central themes in our programme. I do not know how much time I have got; otherwise, I have got a list of some of the things which we are doing.

MR. SPEAKER : She has got 15 minutes.

SHRIMATI INDIRA GANDHI : Uranium mining and the processing of ore at Jaduguda in Bihar, the exploitation of the sands of Kerala to produce atomic minerals, the Fuel Complex that is coming up at Hyderabad, the heavy water plant at Nangal and the new larger unit which will come up at Rana Pratap Sagar, the Electronics Factory at Hyderabad, the Fuel Re-processing Plant at Tarapur, the Atomic Power Stations at Tarapur and Rajasthan, the establishment of the Power Projects Engineering Division of the Atomic Energy Commission to undertake design and construction of atomic power projects, the construction which has begun at Kalpakkam of a power station which is based on our own efforts, the proto-type fast breeder reactor, which will come by its side, are all helping us to lay a solid foundation for the application of atomic energy for national development.

The Break-through which has occurred in the cost of generating electric power by using atomic energy on a large scale is reflected in the current forecast that more than 50 per cent of the new generating capacity, which will be added in the world during the 70s, will be based on atomic energy. Moreover, large agro-industrial complexes established around low cost energy centres can permit developing areas to utilise these advantages even though the capacity of their grids is small. Atomic energy power stations would play a very valuable role in the future not only in areas where other sources of energy are expensive but as base load stations working alongside large hydro-electric installations. The significance of all this to our economy

which is so heavily dependent on agriculture is tremendous.

The Deputy Minister has just now given some indication of how the use of this energy can transform agriculture through radiation of seeds and so on and so forth. I shall not go into that. But we must realise the benefits of using atomic energy, its technology and equipment which are largely our own. It is only through efforts such as those that India can advance from a state of poverty to one of self-sustained growth and, as some hon. Members have mentioned, we could skip over various stages of development and profit from the experience of others.

Hon. Members would be glad to know that the production of a wide range of isotopes and their use for various purposes in medicine, industry and in research is being actively promoted in this country and is also earning us foreign exchange. The benefits of atomic energy can now come to the common man to give him a better life.

No less basic are the efforts which we are making to attain self-sufficiency in the area of space research in relation to sounding rockets and a modest satellite launching capability, even though we entered this field ten years later. The Rohini rockets, which have so pleased our hon. friend, Professor Sharma, are only the fore-runners of a whole series of more advanced rockets. The Department of Atomic Energy will also bear the responsibility for the construction of the new commercial Satellite Communication Station for the Overseas Communications Service. And what is more significant is that a fully steerable large dish antenna of high precision will be fabricated in India. We shall also build a Variable Energy Cyclotron at Calcutta to provide a valuable tool for research.

During the next year we can confidently look forward to good progress in regard to the ambitious projects which have been undertaken by Indian scientists and engineers.

I should like to take this opportunity of expressing my appreciation of the excellent work which brilliant young people in our establishments are doing.

Even though the cut motions have not been moved, I would just like to refer very briefly to one or two of them because some of them give a wrong impression as the word 'failure' is used so often that anybody seeing them will get the impression that no good work is being done.

The Bhabha Atomic Research Centre in Tromby has three experimental reactors; two of them are entirely designed and built by Indian scientists and engineers and the fact that these two reactors are working satisfactorily surely shows that experimental knowledge has been acquired about fission of critical mass of nuclear material.

There was mention why we were exporting thorium. The exports of thorium mineral are banned but thorium nitrate, which is used in the manufacture of gas mantles, has been and is being exported from this country. India has very large deposits of this material and they are far in excess of what we are likely to require for a very long time; in fact, I am told that known Deposits will suffice for the next few hundred years. So, it would be a pity if we were not to use this natural resource for obtaining foreign exchange which we so vitally require for use in other areas.

There was one point made as to why universities were not used. The Department is supporting research projects in universities and scientific institutions and is, in addition, giving fellowships to deserving candidates.

Another Member referred to the point that we had failed to provide technical means to detect nuclear explosions undertaken by China. I think, this matter was taken up in the House. We have detected all Chinese nuclear explosions; our own scientists have detected them.

All these projects to which I have referred will provide real returns for the investment which we have made in this field in the last 20 years. I am glad that our programme commands such widespread support. It is quite true that we have not been able to give to it the funds which it really requires, but it is a deficiency from which we suffer all along the line. I do agree with those hon. Members who feel that this is very important to our develop-

ment and that we should give whatever support we can to it. Government is determined and committed to pursue the atomic energy and space research projects with all possible speed. We fully realise their great importance to the development and progress of our country towards a self-reliant future.

SHRI N. K. SOMANI : Sir, several questions have not been answered. We seek your protection. There are four or five minutes left and one or two questions can be answered.

MR. SPEAKER : If she is prepared to answer, I have no objection.

SHRI N. K. SOMANI : The hon. Prime Minister has said that she is not directly concerned with the progress of the Bhabha Committee Report on electronics. May I know who is concerned about it? She is not a departmental head; she is the Prime Minister. She should be concerned about it.

SHRIMATI INDIRA GANDHI : It is under Defence.

SHRI N. K. SOMANI : Defence does not seem to know about it.

The second thing is that some of the atomic power stations, specially of Rajasthan are under various stages of completion. Has the Government cared to find out whether, when the power is available, there will be clients to take it and what will happen to the industrial development of those areas? Would you, after completion, look for clients who are going to set up plants?

SHRIMATI INDIRA GANDHI : No Sir. We are taking an overall view with regard to it.

SHRI MANUBHAI PATEL : I referred to the huge agro-industrial complex which will harness nuclear energy, sun energy and water energy.

MR. SPEAKER : You are repeating your speech.

SHRIMATI INDIRA GANDHI : It is not under this department.

SHRI RANGA (Srikakulam) : May I draw the attention of the Prime Minister to the lot of discontent prevailing among the rank and file of the scientists who are being employed both at Trombay and also in Bangalore and various places in various sections of the Atomic Energy Commission and its departments? I would like to know whether anything is being done in order to appoint an expert committee or an expert himself to look into this question, whether the people are being promoted in a just manner, whether individual preferences are not being given free play, whether opportunities are fully made available to all those people who are really qualified.

SHRIMATI INDIRA GANDHI : Obviously, we could not function at all if all these things were not being done. But complaints do arise sometimes and they are always looked into. If the hon. Member has any specific cases in mind, I will be very glad if he addresses them to me.

MR. SPEAKER : The question is :

"That the respective sums not exceeding the amounts shown in the fourth column of the order paper, be granted to the President, to complete the sums necessary to defray the charges that will come in course of payment during the year ending the 31st day of March, 1969, in respect of the heads of demands entered in the second column thereof against Demands Nos. 89, 90 and 134 relating to the Department of Atomic Energy."

The motion was adopted.

18.26 hrs.

[Mr. Deputy-Speaker in the chair]

* PRICING OF OIL

SHRI DHIRESWAR KALITA (Gauhati) : Mr. Deputy-Speaker, Sir, on 25th March, 1968, there was a Starred Question regarding the pricing of oil India. That

*Half-An-Hour Discussion.

was answered by the Minister of Petroleum and Chemicals. My question was whether the pricing of oil in India is determined by Persian Gulf parity theory or not. The Minister said, yes, it was based on Persian Gulf parity theory. This Persian Gulf parity theory is known as is called the Second Supplemental Agreement of 1961 and, to our Minister, is like a New Testament. It is a New Testament to our Ministry and to our Minister because they do not think this Agreement which was signed something like 14 years ago and, subsequently, in 1961, is nothing but our Government's signing on some dotted lines, according to the dictates of the British imperialists.

What is this Persian Gulf parity theory? According to this Second Supplemental Agreement, on p. 3, item (iv) says :

"Posted F. O. B. Middle East price of equivalent quality crude oil" means the price quoted in Petroleum Press Service quotation relating to Arabian crude oil ex Ras Tanura for a gravity of 34°-34.9° A. P. I. adjusted to 33.67° A. P. I. which at the date of these presents is Rs. 63.37 per ton."

This is Persian Gulf parity theory price and that price has been brought down to India. How is our pricing fixed? There is, on p. 5, another Para 9(A) (i) which says :

"Subject to the provisions of sub-clause (c) of this Clause and on the basis (a) that the paid up capital of Oil India does not exceed Rs. 28,00,00,000/- and (b) that the posted F. O. B. Middle East price of equivalent quality crude oil is in the range of Rs. 57/- to Rs. 63/- per ton, the price per ton at which crude oil from Area A and Oil India's existing areas will be sold and"

delivered to Indian Refineries Limited's Barauni and Nunmati Refineries and Assam Oil Company's Digboi Refinery will be the posted F. O. B. Middle East price of equivalent quality crude oil plus ocean freight (as per Average Freight Rate Assessment (AFRA) award for a general purpose tanker) insurance (comprehensive