

THIRTY-THIRD REPORT
STANDING COMMITTEE ON ENERGY
(1995-96)

(TENTH LOK SABHA)

DEPARTMENT OF ATOMIC ENERGY
-DEMANDS FOR GRANTS (1995-96)

*[Action Taken by the Government on the Recommendations contained in the
23rd Report of the Standing Committee on Energy (Tenth Lok Sabha)]*



Presented to Lok Sabha on..... 22 DEC 1995
Laid in Rajya Sabha on..... 22 DEC 1995

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COMPOSITION OF THE STANDING COMMITTEE ON
ENERGY (1995-96)

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* Ceased to be a Member of the Committee consequent upon his appointment as Minister in the Union Council of Minister w.e.f. 13.10.1995.

** Ceased to be a Member of the Committee consequent upon his retirement from Rajya Sabha w.e.f. 24.7.1995.

INTRODUCTION

I, the Chairman, Standing Committee on Energy having been authorised by the Committee to submit the Report on their behalf, present this Thirty-Third Report (Tenth Lok Sabha) on Action Taken by the Government on the recommendations contained in the 23rd Report of the Standing Committee on Energy (Tenth Lok Sabha) on "Demands for Grants (1995-96) of Department of Atomic Energy".

2. The 23rd Report of the Standing Committee on Energy was presented to Lok Sabha on 18th April, 1995. Replies of the Government to all but one recommendation contained in the Report (Recommendation Sl. No. 10 on Nuclear Power Programme) were received on 9th August, 1995. The reply to recommendation Sl. No. 10 was received on 4th October, 1995. The Standing Committee on Energy considered and adopted this Report at their sitting held on 18th December, 1995.

3. An analysis of the action taken by the Government on the recommendations contained in the 23rd Report of the Committee is given in Appendix-II.

NEW DELHI;
December 18, 1995
Agrahayana 27, 1917 (Saka)

JASWANT SINGH
Chairman,
Standing Committee on Energy.

CHAPTER I

REPORT

The Report of the Committee deals with the Action Taken by the Government on the recommendations contained in the Twenty-Third Report (Tenth Lok Sabha) of the Standing Committee on Energy on "Department of Atomic Energy-Demands for Grants (1995-96)" which was presented to Lok Sabha on 18th April, 1995.

2. Action Taken Notes have been received from the Government in respect of all the 10 recommendations contained in the Report. These have been categorised as follows:

- (i) Recommendations/Observations that have been accepted by the Government: Sl. Nos. 1, 2, 6, 7 and 8.
- (ii) Recommendations/Observations which the Committee do not desire to pursue in view of the Government's reply: Sl. No. 9.
- (iii) Recommendations/Observations in respect of which the replies of the Government have not been accepted by the Committee: Sl. Nos. 3, 4, 5, and 10.
- (iv) Recommendations/Observations in respect of which final replies of the Government are still awaited: -NIL-

3. The Committee will now deal with the action taken by the Government on some of their recommendations:-

A. Internal and Extra Budgetary Resources **Recommendation (Sl. No. 3, Para No. 7)**

4. The Committee in their Ninth Report had noted with concern that in successive years, the plan expenditure of the Department had been much less than the budgeted amount. The Committee noted that in the year 1994-95 too, the plan and non-plan expenditure of the Department was expected to fall short of the budgeted amount considerably. The Committee observed that the setback in plan activities of the Department was mainly due to non-realisation of the Internal and Extra Budgetary Resources as originally envisaged. The mobilisation of funds under IEBR was just Rs. 679 crores as against the target of Rs. 1042 crores. The Committee, therefore, stressed that the estimates of IEBR should be made on a realistic basis.

5. In their reply, the Department have, *inter-alia*, stated that due to budgetary constraints the budgetary support in successive years has been far short of the eligible budgetary support of the Nuclear Power Sector. The Department have further stated that during the year 1994-95, as against the budgetary support of Rs. 1005 crores proposed by the department, only Rs. 184 crores was approved as budgetary support for NPCIL in BE 94-95 and the IEBR was enhanced to Rs. 983 crores. It has been stated that NPCIL has been requesting the Government to reconsider the budgetary support and has requested that the budgetary support for 1994-95 may be augmented to at least Rs. 500 crores. In view of the above, IEBR is stated to have been shown in the Revised Estimate of 1994-95 as Rs. 644 crores as against Rs. 983 crores shown in the Budget Estimate.

6. The reply is confined to budgetary provisions regarding the Nuclear Power Corporation of India Limited (NPCIL) and does not detail the performance of DAE as a whole. It is observed from the additional information furnished by DAE that the actual mobilisation of IEBR for DAE as a whole during 1994-95 was only Rs. 286.90 crores as against the revised target of Rs. 679 crores. The shortfall in the mobilisation of IEBR during the year was as much as Rs. 392 crores. The reasons for shortfall in IEBR mobilisation during 1994-95 have not been given by DAE. As already pointed out by the Committee earlier, shortfall in IEBR mobilisation adversely affects the Plan activities of the Department particularly when IEBR forms a substantial part of total plan funds. The Committee, therefore, emphasise that the budgetary planning of the Department of Energy should be made on a realistic basis so as to meet the requirements of plan activities.

B. Shortfall in utilisation of Budget Provisions
Recommendation (Sl. Nos. 4 & 5, Para Nos. 8, 10 & 11)

7. The Committee had noted with concern that the shortfall in utilisation of Budget provisions in the Industries and Minerals Sector was as much as Rs. 79 crores during 1993-94. The Committee observed that the shortfall in budgetary utilisation was expected to go up to Rs. 109 crores during 1994-95. The Committee further observed that the shortfall in utilisation of budgetary provisions of "Fuel Fabrication Facilities and others" was a staggering Rs. 67 crores during 1993-94 and reduction in budgetary provision during 1994-95 was as much as Rs. 50 crores. The Committee felt that there was a need to have a relook at the budget planning exercise of the NFC and to take suitable corrective measures as a result thereof.

8. The Department have, *inter-alia*, stated in their reply that the shortfall in plan expenditure under Industries and Minerals (I & M) Sector is mainly due to rescheduling implementation of Expansion of existing facilities of Nuclear Fuel

Complex (NFC). The Department have, further stated that due to slowing down of Nuclear Power Programme as a result of financial crunch, the implementation of the newly sanctioned projects of NFC was re-phased and only 50% of the capabilities are being added in the first phase. As a result, the funds provided in the budget for 1993-94 could not be fully utilised.

9. The Government have explained the reasons for shortfall in utilisation of budgetary provisions during the year 1993-94 and have attributed the same to re-phasing of implementation of newly sanctioned projects consequent on slowing down of the Nuclear Power Programme because of financial crunch. It has however, not been satisfactorily explained as to why these changes were not taken into consideration at the time of formulation of the budget and realistic budget estimate the succeeding made for the succeeding year i.e. 1994-95. The Committee will await an explanation in this regard.

C. Nuclear Power Programme

Recommendation (Sl. No. 10, Para No. 18)

10. The Department of Atomic Energy in 1984 had set for itself a target of 10,000 MW of nuclear power capacity by the turn of the century. To meet the requirements in this regard advance action was taken after all cabinet approvals had been granted. Consequently for procuring various items indigenously orders were also placed. The Committee, however, noted that the programme had since been abandoned. The present programme was to achieve a total nuclear installed generating capacity of 2820 MW by the year 1997. The Committee felt that this abandoning of the action plan had many adverse consequences. A great deal of damage had been done to our indigenous effort and to the industry. The Committee were of the view that a complete explanation on this matter was owned by the Government. The Committee while demanding such an explanation recommended that adequate and needed budgetary support must be provided to meet requirements of nuclear power programmes of the DAE.

11. The Department in their reply have explained the reasons for not achieving the targets set earlier regarding Nuclear Power Programme. The Department have, *inter-alia*, stated as follows:

“As the budgetary support by Government is being reduced from year to year and the inability of the Corporation to raise adequate Extra Budgetary Resources from the open market coupled with the problems mentioned above, the targets set earlier could not be achieved by the year 2000 A.D. Increase in contribution in power generation will emerge only with the availability of adequate resources in the coming years. The Planning Commission, have, however, indicated that all out efforts will

continue to be made to augment the budgetary support to the extent possible within the overall resources constraints.”

12. The Committee have in a separate report dealt with the adverse implications of abandoning the Nuclear Power Programme formulated earlier. The Committee would, however, reiterate that adequate and needed budgetary support must be provided to meet the requirements of Nuclear Power Programme of the DAE.

CHAPTER II

RECOMMENDATIONS/OBSERVATIONS THAT HAVE BEEN ACCEPTED BY THE GOVERNMENT

Recommendation (Sl. No. 1, Para No. 2)

The Committee are constrained to observe that copies of Annual Report of the Department were not furnished to the Committee until the report was finalised on 13th April, 1995. Only one draft copy of the Annual Report was made available on 12th April, 1995. There was also delay in supply of copies of Performance Budget which were received on 10th April, 1994. The Committee expect the Department to ensure that in future the copies of Performance Budget, Annual Report and Budget Notes are furnished along with Demands for Grants well in time to enable the Committee to undertake a thorough scrutiny of Demands for Grants.

Reply of the Government

The observations of the Committee are noted for future compliance. The preparation of Performance Budget and the Annual Report of the Department involves collection of data from various units of the Department of Atomic Energy numbering 30 spread all over India. During the current financial year, the Ministry of Finance has issued orders changing the standard object heads of classification of expenditure and also standardisation of account heads and changes in the pattern of alpha code system into numerical codes. This has resulted in delay in preparation of the Demands for Grants of the Department based on which the Performance Budget of the Department is prepared. Incidentally, it may also be mentioned that the final plan outlay for the Department was communicated by the Planning Commission by the end of Feb. 1995 with the result the finalisation of Budget proposals including the Performance Budget of the Department was delayed. Further, during the scrutiny of the Performance Budget of the Department by the Parliamentary Committee in 1994-95, some changes in the presentation of the Performance Budget, were suggested. Based on these suggestions, the presentation of Performance Budget during the year has been made.

As regards Annual Report of the Department, it includes the achievements of the Department in a particular year upto the end of financial year. The

scientific translation/updatation of data for preparation of Annual Report resulted in delay in submission of the document. Such delays will not recur in future.

[Department of Atomic Energy D.M. No. 1/2 (5)/95-Budget dated Aug. 4, 1995]

Recommendation (Sl. No. 2, Para Nos. 5 & 6)

The Budget provisions of DAE as observed from the Performance Budget are given below:—

	(Rs. in crores)					
	1994-95				1995-96	
	B.E.		R.E.		B.E.	
	Plan	N-Plan	Plan	N-Plan	Plan	N-Plan
Budgetary	530	1439	500	1282	643	1428
Support						
I.E.B.R	1042	-	679	-	887	-
Total	1572	1439	1179	1282	1530	1428

IEBR—International and Extra Budgetary Resources.

The above information as given in the Performance Budget of DAE is for a two year period. Obviously, the information is insufficient to make any meaningful analysis particularly in the absence of figures relating to actual utilisation. The Committee in their ninth report had highlighted the inadequacy of information contained in the Performance Budget. Information bringing out physical and financial performance ought to be given for a three year period in respect of each item of expenditure. The Committee in this connection refer to the Performance Budget and Budget Notes furnished by the Ministry of Power which bring out fairly comprehensive and upto date information. The Committee suggest that DAE may consider preparing its budgetary documents on similar lines.

Reply of the Government

The suggestions of the Committee are noted for compliance. The information relating to last three years is furnished below :—

	1991-92			1992-93			1993-94		
	Budget	Actuals	% Utili- sation	Budget	Actuals	% Utili- sation	Budget	Actuals	% utili- sation
	(Rs. in crores)								
Plan	412.14	354.42	86.00	412.00	356.42	86.51	743.00	701.61	94.42
Non-plan	1108.79	935.51	84.37	1145.53	1042.21	91.02	1315.12	1183.80	90.00
Total	1520.93	1289.93	84.81	1557.53	1399.63	89.83	2058.12	1885.41	92.21

[Department of Atomic Energy D.M. No. 1/2(5)/95-Budget dated Aug. 4, 1995]

Recommendation (Sl. No. 6, Para No. 12)

Another area which requires attention is Fuel Inventory in Power Sector which recorded a shortfall of Rs. 97 crores as against the budget estimate of Rs. 235 crores in 1993-94 and a reduction of Rs. 72 crores as against the original budgetary provision of Rs. 296 crores during 1994-95. The Committee expect that the reasons for steep shortfall in budgetary utilisation for Fuel Inventory should be gone into in detail and realistic estimates made in future.

Reply of the Government

The shortfall in expenditure under the Head 'Fuel Inventory' is mainly due to the fact that the contract for supply of enriched uranium had expired and it took some time for entering into a fresh contract from an alternate supplier from a different country.

[Department of Atomic Energy O.M. No. 1/2(5)/95-Budget dated Aug. 4, 1995]

Recommendation (Sl. No. 7, Para Nos. 13 and 14)

The physical performance of Atomic Power Stations in generating power during 1994-95 has been as indicated below:-

Atomic Power Station	Gross Generation (MUs)		Capacity Factor %	
	Budgeted	Anticipated	Budgeted	Anticipated
Tarapur Rajasthan	1770	1515	63	54
Unit-I	393	-	45	-
Unit-II	1010	410	58	-
Madras	1900	2434	49	63
Narora	2100	952	54	25
Kakrapar	1540	369	51	19

The Committee in their ninth report had commented on the poor performance of Narora and Unit-II of Rajasthan Atomic Power Stations during 1993-94. The Committee's scrutiny of 1994-95 performance shows that these units continue to fare badly. In addition to these, Tarapur and Kakrapar Plants have also recorded shortfall in generating performance. Kakrapar Unit has registered the lowest capacity factor of just 19%. The Committee view this phenomenon with considerable concern and dismay. The Committee desire that an exercise should be conducted to identify the problems that plague each unit and effective

remedial measures undertaken on a time bound programme to improve the generating performance of atomic power stations.

Reply of the Government

Physical Performance

The physical performance of generation from Atomic power stations for the year 1994-95 (budgeted, anticipated and actual) and targets for the year 1995-96 are given below:-

Unit	1994-95						1995-96	
	Budgeted		Anticipated		Actual		Target	
	Gen.	C.F.	Gen.	C.F.	Gen.	C.F.	Gen.	C.F.
Tarapur	1770	63	1515	54	1517	54	1600	57
Rajasthan-1	393	45	-	-	-	-	-	-
Rajasthan-2	1010	58	410	70 [#]	410	70 [#]	-	-
Madras	1900	49	2434	63 (82) [@]	2432	63 (82) [@]	1950	65 [@]
Narora	2100	54	952	25	952	25	2368	61
Kakrapar	1540 [*]	51	369	19	358	19	1933 ^{**}	57

* During 1994-95, Kakrapar-2 target of 560 MUs included from September 1994.

Capacity factor upto 31st July, 1994, when Rajasthan-2 was shut down for capital maintenance for inservice inspection of its coolant channels and enmasse replacement.

@ Capacity factors of Madras Units based on the restricted maximum operating power level of 2 x 170 MWe.

** During 1995-96, Kakrapar-2 target of 723 MUs included from 1 July, 1995.

Generating Performance 1994-95

Madras Unit

Madras 1&2 Units exceeded the budget target by about 28%. The station achieved a capacity factor of 63% based on a rating of 2 x 220 MWe and 82% based on the restricted maximum operating power level of 2 x 170 MWe.

MAPs Unit-2 is under planned annual outage, for replacement of turbine rotor and ISI of coolant channels. Newly developed INGRES tool (developed by

BARC) is being tried to reposition the garter springs which have moved away from their design intent locations. Performance of INGRES will influence the outage duration.

Tarapur Units

Tarapur Unit-2 generated 971 MUs and recorded a capacity factor of 60%. However, Tarapur Unit-I did not meet the target and contributed to the shortfall. The refuelling outage of Unit-I got extended by 2 months upto 12 July, 1994 for repairing the bypass line of the recirculation 100p and motor operated valves in the shut down cooling system. The Unit-I also encountered problems with its turbine main oil pump leading to outages from 14th July to 15th Aug., 1994, and from 13th Sept. to 24th Nov., 1994, as the failed parts of this imported equipment had to be replaced after indigenising the same. Tarapur Unit-I generated 546 MUs with a capacity factor of 39%. This contributed to the shortfall in the actual generation from this station as compared to budgeted figures.

Rajasthan Unit 1 & 2

Rajasthan Unit-I was shut down throughout 1994-95 because of a minor but difficult heavy water leak in the Over Pressure Relief Device (OPRD) mounted on its calandria. The difficulty in repair arises due to inaccessibility of the location. The techno-economic assessment of continued operation of this first PHWR is being done having regard to the end shield and OPRD problems and health of the coolant channels.

The techno-economic viability of continued operation has been studied and the report has been submitted to NPC Board. The Unit is also due for replacement of coolant channels, refurbishment of old equipment and safety upgrades. Even then the reactor cannot be operated at 100% full power because of end shield.

Rajasthan Unit-2 is under capital maintenance shut down from 1st Aug., 1994 for coolant channel inservice inspection and consequent enmasse replacement and upgradation of system/equipments. The shut down will last till May, 1998.

Narora Units 1 & 2

After the fire incident in Unit-I of Narora Station on 31st March, 1993, the Unit-I after rehabilitation was expected to come back on line in July, 1994 and budgeted target was made accordingly. However, the Unit-I could come back on line only on 6 Jan., 1995. The rehabilitation work was of a challenging nature involving major jobs like dismantling the damaged Turbine generator, its replacement, civil works in the turbine hall, re-routing of control and power cables, strengthening of fire barriers, repairing and cleaning the turbine condenser.

testing and commissioning of all the systems before restart of the Unit. These jobs took more time than originally envisaged due to their complexities and were completed in a period of about 21 months. The manner in which the incident was handled, and the subsequent rehabilitation and improvements carried out indigenously, have received international acclaim. Narora Unit-2 was already on line during the year after the rehabilitation consequent on the damage to common systems caused by the fire incident in Unit-I. The Unit-2 encountered three long outages from 12 Sept. to 2 Nov. 1994., 11 Dec. to 25 Dec. 1994 and from 28th Jan. to 9 April 1995, all outages being attributable to problems with its turbine generator, such as shroud and blade failures in the HP rotor, and high bearing temperatures. In addition this Unit suffered several short duration outages due to high grid frequencies. These factors were the main contributors to the shortfall.

Both the Units are performing well. During the first quarter of 95-96 these Units have achieved PLF of 81% and 68% respectively, inspite of adverse grid operating conditions.

Kakrapar Units 1 & 2

A target of 560 MUs budgeted for Kakrapar Unit-2 from Sept. 1994, could not materialise, as the Kakrapar Unit-2 actually achieved first criticality on 8.1.1995 as against the date of 31.1.1994 assessed at the time of preparation of Budget. It was synchronised to the grid on 4 March 1995 and is expected to become commercial from 1 July 1995. This Unit is presently operating at 90 MWe based on the AERB authorisation level of 50%. Kakrapar Unit-1 was shutdown in Feb. 1994 for inspection of its turbine and incorporating modifications required as a result of the lessons learnt from the fire incident at Narora. This shutdown was prolonged till 28 October 1994, partly because of delays caused by the flood incident in June 1994, due to unprecedented rains and also adjustments of the main generator and shields for hydrogen leak tightness. The Unit also suffered a few short duration outages due to grid disturbances. These are the main contributory factors for the shortfall.

These Units are operating well. However, KAPS-I had a failure of turbine governing system, needing replacement. KAPS-2 was authorised to operate at 75% full power by AERB and the Unit has been operating steadily. Clearance from AERB is awaited to operate the Unit at 100% full power. The Unit is expected to be declared commercial, soon thereafter.

Prospects 1995-96

The Department notes the comments of the Committee for compliance. A target of 7851 MUs has been budgeted for 1995-96. With actions already taken

on the modifications of the turbine generators, and stabilisation of the Narora and Kakrapar Units, it is expected that performance of these Units would improve. Tarapur Unit-2 will take a long outage for inspection of the core shroud for cracks, based on international reports of cracks encountered in U.S. BWRs. Rajasthan Units 1 & 2 will continue to be shut down due to reasons mentioned above. The performance of the indigenous turbine generators has been cause for concern, affecting all the operating PHWRs. This matter has been taken up with Bharat Heavy Electrical Ltd. (BHEL) and a joint task force with members from NPCIL and BHEL has been constituted for reviewing and resolving the problems.

Regarding grid frequency variations, the matter is being taken up at various levels with concerned agencies such as State and Regional Electricity Boards. Implementation of islanding schemes is also planned for some of the stations to isolate the unit during grid disturbance and operate on dedicated loads. However, implementation of such schemes is a long term process due to involvement of several agencies and special requirements related to implementing such schemes.

Strengthening the condition monitoring, preventive and predictive maintenance, and ongoing training of D&M personnel are other measures underway for improvement.

[Department of Atomic Energy D.M. No. 1/2(5)/95-Budget dated Aug. 4, 1995]

Recommendation Serial No. 8 (Para Nos. 15 and 16).

The Eight Plan Outlay and the expected expenditure during the first four years of the plan in respect of certain projects as observed from the Performance Budget are given below:—

(Rs. in crores)

	B Plan Outlay	Anticipated Expendr. during first four years
Bhabha Atomic Research Centre		
(i) Revamping of PREFRE-I	40	5.97
(ii) Waste Immobilisation Plant at Kalpakkam	50	17.86
Indira Gandhi Centre for Atomic Research		
Setting up of Prototype Fast Breeder Reactor Project	43.99	15.70

The expenditure to be incurred during the first four years of the 8th plan in respect of revamping of PREFRE-I, Waste Immobilisation Plant and Prototype Fast Breeder Reactor Project is far below the 8th plan outlay. It appears that there is hardly any possibility of utilising the bulk balance outlay during the terminal year of the 8th plan. The Committee would like to be appraised of the reasons for shortfall in utilisation of the 8th plan outlay and slow progress in respect of these projects.

Reply of the Government

The present status of the projects of BARC and IGCAR is explained below:-

1. Revamping of PREFRE-I

The project was originally to be started in 1993-94. However, on a critical review of the design of the project, the original estimate of Rs. 58 crores was revised to Rs. 46 crores and the project was sanctioned only in Dec. 1993. The work on the project was taken up from 1994-95 only. This is partly responsible for the delay. In the first year, the detailed design of the building and the engineering design of process equipment and piping was projected. The work on this has actually taken place in 1994-95 and is in progress. Similarly, procurement action for bulk materials like Stainless Steel Plates and Pipes has been initiated. The civil works relating to auxiliary buildings and underground drainage have also been started. In the year 1995-96 procurement action for bulk materials and supplies will be in progress. Similarly, detailed engineering of process equipment and piping as well as civil works will be in progress. It is expected that budget provision of Rs. 5 crores will be utilised during the year. In the year 1996-97 civil works will be in full swing and detailed engineering design of the process system will be completed. A provision of Rs. 7.5 crores would be needed in the year 1996-97. A provision of Rs. 13.47 crores may be utilised during the 8th plan against approved plan outlay of Rs. 40 crores.

Waste Immobilisation Plant, Kalpakkam

The conceptual design of the main plant for the project was based on the design used for the Waste Immobilisation Plant at Tarapur, the first plant to be commissioned in India, entirely through indigenous effort in the year 1988. Based on the inputs from the operational experience of Tarapur Plant, innovations in the design and plant layout in the Waste Immobilisation Plant were effected. Redesign of the plant layout and the process equipments etc., the construction of the main plant building started in 1993-94. The storage building meant for the storage of the waste product after processing will be taken up after the construction of the main plant has reached an advanced stage. Construction of housing for the plant staff will commence thereafter. An expenditure of Rs. 10 crores each is estimated

in the year 1995-96 and 1996-97. The total plan outlay likely to be utilised during the VIII Plan will be Rs. 27.86 crores against Rs. 50 crores approved for the VIII Plan period.

Setting up of Prototype Fast Breeder Reactor

The main reasons for shortfall in the expenditure expected during the VIII Plan period are summarised below:—

- (a) There have been delays in procurement of imported raw materials.
- (b) To reduce overall cost of the project, design changes have been made which would affect the technology development of important components.
- (c) Delay in manufacture for technology development by Indian Industries on account of high tech. work involved.

However, efforts are on hand to review all the capital projects of the Centre at regular intervals to expedite and speed up the activities.

[Department of Atomic Energy O.M. No. 1/2(5)/95-Budget dated Aug. 4, 1995]

CHAPTER III

RECOMMENDATIONS/OBSERVATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF THE GOVERNMENTS REPLIES

Recommendation (Serial No. 9, Paragraph No. 17)

The Atomic Minerals Division (AMD) is responsible for exploration of atomic minerals required for the Indian nuclear power programme. The Committee observe that AMD could recover only about 660 tonnes ore as against a target of 15,000 tonnes from experimental mining. No target in this regard has been fixed for the year 1995-96. The Committee would like to know the reasons for not achieving the desired results in experimental mining.

Reply of the Government

The physical target and the achievements under the head mining programme during last three years have been as under:—

Year	Target	Achievements
		(figures in tonnes)
1992-93	258	168
1993-94	120	145
1994-95	—	660

It is regretted that during the year 1994-95 no target was indicated in our Performance Budget and that in the Performance Budget for the year 1995-96 an unrealistic figure of 15000 tonnes has inadvertently been indicated as target for the year 1994-95.

[Department of Atomic Energy O.M. No. 1/2/(5)/95-Budget dated Aug. 4, 1995]

CHAPTER IV

RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

Recommendation (Serial No. 3, Paragraph No.7)

The Committee in their ninth Report had noted with concern that in successive years, the plan expenditure of the Department has been much less than the budgeted amount. In the year 1994-95 too, the plan and non-plan expenditure of the Department is expected to fall short of the budgeted amount considerably. The set back in plan activities of the Department is mainly due to non-realisation of the Internal and Extra Budgetary Resources as originally envisaged. The mobilisation of funds under IEBR was just Rs. 679 crores as against the target of Rs. 1042 crores. The Committee stress that the estimates of IEBR should be made on a realistic basis.

Reply of the Government

At the time of formation of NPCIL, it was agreed by the Government that the first 50% of the investment in the future projects would be provided through budgetary support as equity and the balance would be mobilised by NPCIL through market borrowings. However, due to budgetary constraints the budgetary support, in successive years has been far short of the eligible budgetary support of the Nuclear Power Sector.

During the year 1994-95, as against the budgetary support of Rs. 1005 crores proposed by the Department, only Rs. 184 crores was approved as budgetary support for NPCIL in BE 94-95 and the IEBR was enhanced to Rs. 983 crores. However, NPCIL has been requesting the Government to reconsider the budgetary support and has requested that the budgetary support for 1994-95 may be augmented to at least Rs. 500 crores. In view of the above, IEBR has been shown in the Revised Estimate of 1994-95 as Rs. 644 crores against Rs. 983 crores shown in the Budget Estimate.

[Department of Atomic Energy O.M. No. 1/2(5)/95—Budget dated Aug. 4, 1995]

The actual IEBR Mobilised during the year 94-95 is Rs. 286.90 crores. Demandwise details are furnished below:

IEBR:

Demand No. 85—Atomic Energy	Rs. 60.95 crores
Demand No. 86—Nuclear Power Schemes	<u>Rs. 225.95 "</u>
	<u>Rs. 286.90 "</u>

Please note that Mobilisation of IEBR of NPCIL for 94-95 should be read as Rs. 225.95 crores as against Rs. 155 crores indicated earlier(.) A revised Statement is submitted below :—

	Actuals 1994-95	Budget Estimates 1995-96
		(Rs. in crores)
Plan	286.17	346.00
Non-plan	845.07	912.29
Total	1131.24	1258.29
IEBR	60.95	35.00
Demand No. 86 — Nuclear Power Schemes		
Plan	199.98	300.00
Non-plan	367.09	516.01
Total	567.07	816.01
IEBR	225.95	851.73
Information relating to NPCIL.		
Utilisation of Budgetary support during 94-95	188.92	270.27
Mobilisation of IEBR during 1994-95	225.95	851.73
Regards(.)		

[Department of Atomic Energy No. 11/6-A/95-Parl. New Delhi, December 5, 1995]

Comments of the Committee

(Please see paragraph 6 of Chapter I of the Report)

Recommendation (Serial No. 4, Paragraph No. 8)

The resource allocation in respect of the Industries and Minerals Sector has been as under:—

(Rs. in crores)

	1993-94		Shortfall(-) Excess(+)	1994-95			1995-96
	B.E.	Actual		B.E.	R.E.	Difference	B.E.
Plan	195	168	(-)27	205	151	(-)54	178
Non-plan	598	546	(-)52	592	537	(-)55	595
Total	793	714	(-)79	797	688	(-)109	773

The Committee note with concern that the shortfall in utilisation of Budget provisions in the Industries and Minerals Sector was as much as Rs. 79 crores during 1993-94. The shortfall in budgetary utilisation is expected to go up to Rs. 109 crores during 1994-95. The Committee expect the DAE to explain the reasons for the poor budgetary performance of the Industries and Minerals Sector and indicate to what extent the under utilisation was beyond control.

Reply of the Government

The shortfall in plan expenditure under I & M Sector, is mainly due to rescheduling implementation of expansion of existing facilities of Nuclear Fuel Complex (NFC). A detailed analysis of same is furnished against paras 10 and 11 of this report.

The Table given below indicates the gross budget figures, receipts projected and net outflow of cash in Budget Estimates and Revised Estimates 1994-95.

	Gross Budget Proposed	Receipts Projected	Net Outflow of cash (Rs. in crores)
Approved B.E. 94-95	904.40	271.08	633.32
R.E. Projected by the Department	926.80	215.53	711.27
R.E. approved by the Min. of Finance.	849.02	215.53	633.49

It would be seen from the above that in order to keep the budgetary deficit to the minimum level, the Ministry of Finance have cut the approved Non-plan provision to the extent the receipts of the Department have gone down in the revised estimates so that the net out-flow of cash, which was Rs. 633 crores in BE 94-95 would be kept at the same level in RE 94-95 (Rs. 633.00 approximately). The main reason for reduction in receipts of the Department is less receipts anticipated from NFC towards cost of PHWR fuel fabricated by them. NFC had to reduce the production of PHWR fuel due to reduced requirement by NPCIL for their power stations. Further, the production facilities of NFC also were shut down for a period of three months for annual maintenance. Accordingly, a net expenditure of Rs. 633.49 crores only (i.e. Gross expenditure of Rs. 849.02 crores minus anticipated receipts of Rs. 215.53 crores) has been approved by the Ministry of Finance, resulting in the enforced surrender of Rs. 55.38 crores in Non-plan expenditure during 94-95 out of the approved provision.

[Department of Atomic Energy O.M. No.1/2(5)/95-Budget dated Aug. 4, 1995]

Comments of the Committee

(Please see paragraph 9 of Chapter I of the Report)

Recommendation (Serial No. 5, Paragraph Nos. 10 and 11)

The budgetary provisions and realisation of "Fuel Fabrication Facilities and others" of the Nuclear Fuel Complex during 1993-94 and 1994-95 are given below:—

(Rs. in crores)

	1993-94		Shortfall (-)	1994-95			1995-96
	B.E.	Actual		B.E.	R.E.	Short-fall	
Fuel Fabrication Facilities and Others	100.00	33	(-)67	100	50	(-)50	70.00

It can be observed from the above statement that the shortfall in utilisation of budgetary provisions of "Fuel Fabrication Facilities and others" was a staggering Rs. 67 crores during 1993-94 which in percentage terms works out to a shortfall of 67%. What one would have expected of the Department is to re-assess the financial requirements realistically in the succeeding year. But this has not happened. It is observed that the reduction in budgetary provision during 1994-95 was as much as Rs. 50 crores which works out to a decline of 50%. The Committee in their first and ninth reports had highlighted the disturbing aspect

of under utilisation of budgetary allocations by the Nuclear Fuel Complex. Improvement in budgetary performance of the Complex is still not visible. The Committee feel that there is a need to have a relook at the budget planning exercise of the NFC and to take suitable corrective measures as a result thereof.

Reply of the Government

Financial sanction for new projects were issued in Aug. 1992, keeping in view the Nuclear Power Programme of 6050 MWe generation target. On the above basis the budget provision for 1993-94 was made. However, due to slowing down of the Nuclear Power Programme as a result of the financial crunch, the implementation of the newly sanctioned projects of NFC viz., New Uranium Oxide Fuel Project, New Uranium Fuel Assembly Plant and New Zircaloy Fabrication Plant was re-phased and only 50% of the capacities are being added in the first phase. As a result, the funds provided in the budget for 1993-94 could not be fully utilised. Phase-I of the Nuclear Fuel Expansion Programme of NFC to a capacity of 300 tonnes of fuel production per year is under implementation which is to be completed in a phased manner by July, 1996. However, the time available due to re-phasing of the implementation of the expansion programme has given an opportunity for increased/further indigenisation of equipment and machinery required thereby saving a large amount of foreign exchange as well as leading to a reduction in the cost of the project. Taking advantage of this, a good amount of indigenisation of capital equipment such as Annealing Furnaces, Sintering Furnaces, End Cap Welding Machines, Fuel Assembly Machine, etc. has been made. Since this involved design and also identification of suitable vendors within the country, the pace of the project work was slightly slowed down. However, in view of the indigenisation, it has been possible to bring down the project cost substantially by about Rs. 125 crores: from the initially contemplated figure of Rs. 355 crores.

Since the redesign to suit the indigenisation process has been completed and majority of the equipments have already been ordered, it is expected that two of the projects will be completed in Dec. 1995, and the third one in July, 1996.

[Department of Atomic Energy O.M. No. 1/2(5)/95-Budget dated Aug 4, 1995]

Comments of the Committee

(Please see Paragraph 9 of Chapter 1 of the Report)

Recommendation (Serial No. 10, Paragraph No. 18)

The Department of Atomic Energy in 1984 had set for itself a target of 10,000 MW of nuclear power capacity by the turn of the century. To meet the

requirements in this regard advance action was taken after all cabinet approvals had been granted. Consequently for procuring various items indigenously orders were also placed. It, however, appears that the programme has since been abandoned. The present programme is to achieve a total nuclear installed generating capacity of 2820 MW by the year 1997. The Committee feel that this abandoning of the action plan had many adverse consequences. A great deal of damage has been done to our indigenous effort and to the industry. The Committee are of the view that a complete explanation on this matter is owed by the Government. The Committee's views about Nuclear Power, as an answer to our power shortage have been explicitly stated many times. The Committee, therefore, while demanding such an explanation recommend that adequate, and needed budgetary support must be provided to meet the requirements of nuclear power programmes of the DAE.

Reply of the Government

The nuclear power profile of the Department formulated in 1984 projected an installed capacity of 10,000 MW by 2000 A.D. When the profile was approved in principle in 1985, by the Government of India, there were only five operating reactors with an installed capacity of 840 MWe. In order to step up this capacity to 10,000 MWe in the next fifteen years (by 2000 AD), it was projected at that time that the programme would require an investment of about Rs. 14,000 crores (based on 1983 prices) for nuclear power and related facilities. The outlays during VII, VIII and IX Plan period projected were Rs. 3809 crores, Rs. 7381 crores and Rs. 2384 crores respectively as per this profile. However, for the VII Plan for nuclear power sector Government approved an outlay of only Rs. 2010 crores.

With a view to mobilise adequate resources for the power programme, the Nuclear Power Corporation of India Ltd. (NPCIL) was formed in September, 1987. It was expected that extra budgetary resources would also be raised which would accelerate the nuclear power programme. At the time of formation of the Corporation it was agreed that the funding of future projects including works in progress and interest during construction would be in the form of 50% as Government equity and 50% as loan. The equity portion of budgetary support amounting to 50% of the Project cost was to be released first and utilised. However, due to financial constraints the Government could not adhere to this commitment. The NPCIL since its inception has mobilised Rs. 2883 crores from the market through Bonds to support the nuclear power programme. As the resource crunch became more acute the Corporation had difficulties in further resources mobilisation from the market and the Department had to reduce the target.

The principled stand taken by India regarding signing of the Non-proliferation Treaty and the consequent restrictions placed by the Nuclear Supplier's Club on supply of safety-related and other equipment to this country and their insistence on application of comprehensive safeguards as a pre-requisite for supplies have forced the Department to develop indigenous technology and capability in the nuclear field. The indigenisation efforts have necessarily to be time consuming. These have also contributed to the slow pace of implementation of the power projects.

As the budgetary support by Government is being reduced from year to year and the inability of the Corporation to raise adequate Extra Budgetary Resources from the open market coupled with the problems mentioned above, the targets set earlier could not be achieved by the year 2000 A.D. Increase in contribution in power generation will emerge only with the availability of adequate resource in the coming years. The Planning Commission, have, however, indicated that all out efforts will continue to be made to augment the budgetary support to the extent possible within the overall resources constraints.

[Department of Atomic Energy O.M. No. 1/2(5)/95-Budget dated 28.9.95]

Comments of the Committee

(Please see paragraph 12 of Chapter 1 of the Report)

CHAPTER V

**RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH
FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED**

-NIL-

NEW DELHI;
December 18, 1995
Agrahayana 27, 1917 (Saka)

JASWANT SINGH,
Chairman,
Standing Committee on Energy.

APPENDIX I

EXTRACTS OF THE MINUTES OF THE TENTH SITTING OF THE STANDING COMMITTEE ON ENERGY HELD ON 18TH DECEMBER, 1995

The Committee sat from 16.00 hrs. to 16.30 hrs.

PRESENT

Shri Jaswant Singh — *Chairman*

MEMBERS

2. Shri Khelsai Singh
3. Shri K.P. Reddaiah Yadav
4. Shri Arjun Singh Yadav
5. Shri Virender Singh
6. Shri Anil Basu
7. Shri Rajesh Kumar
8. Shri Chitta Basu
9. Smt. Dil Kumari Bhandari
10. Shri Dipankar Mukherjee
11. Smt. Ila Panda
12. Shri Rajni Ranjan Sahu
13. Smt. Kamla Sinha

SECRETARIAT

1. Shri G.R. Juneja *Deputy Secretary*
2. Shri A. Louis Martin *Under Secretary*

2. The Committee considered and adopted the following Draft Reports:—

** ** ** **

- (iv) Draft Action Taken report on the recommendations contained in the 23rd Report of the Standing Committee on energy (1995-96) on Demands for Grants (1995-96) of Department of Atomic Energy.

** ** ** **

3. The committee placed on record their appreciation of the work done by the Sub-Committees.

4. The Committee also authorised the Chairman to finalise the above mentioned reports and present the same to Parliament after factual verification of the reports by the Ministries concerned.

The committee then adjourned.

** Para 2 (i), (ii), (iii), (v) and (vi) of the Minutes relating to consideration of five other Draft Reports have not been included.

APPENDIX II

(Vide Para 3 of Introduction)

Analysis of Action Taken by Government on the recommendations contained in the Twenty-third Report of the Standing Committee on Energy (Tenth Lok Sabha).

I.	Total No. of recommendations made	10
II.	Recommendations that have been accepted by the Government (<i>vide</i> recommendations at Sl. Nos. 1, 2, 6, 7 and 8).	5
	Percentage of total	50%
III.	Recommendations which the Committee do not desire to pursue in view of the Government's replies (<i>vide</i> recommendation at Sl. No. 9).	1
	Percentage of total	10%
IV.	Recommendations in respect of which replies of the Government have not been accepted by the Committee. (<i>vide</i> recommendation at Sl. Nos. 3, 4, 5 and 10).	4
	Percentage of total	40%
V.	Recommendations in respect of which final replies of the Government are still awaited.	Nil