

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

1. **Shri Ashok Basu, Chairperson**
2. **Shri Bhanu Bhushan, Member**
3. **Shri A.H. Jung, Member**

Petition No 151/2004

In the matter of

Approval of tariff in respect of Rihand Super Thermal Power Station Stage-I (1000 MW) for the period from 1.4.2004 to 31.3.2009.

And in the matter of

National Thermal Power Corporation Ltd.

.....Petitioner

Vs

1. Uttar Pradesh Power Corporation Ltd., Lucknow
2. Jaipur Vidyut Vitran Nigam Ltd, Jaipur
3. Ajmer Vidyut Vitran Nigam Ltd, Ajmer.
4. Jodhpur Vidyut Vitran Nigam Ltd, Jodhpur
5. Delhi Transco Limited, New Delhi
6. Haryana Vidyut Prasaran Nigam Ltd, Panchkula
7. Punjab State Electricity Board, Patiala
8. Himachal Pradesh State Electricity Board, Shimla
9. Power Development Department, Govt. of J&K, Srinagar
10. Power Department, Union Territory of Chandigarh, Chandigarh
11. Uttaranchal Power Corporation Ltd., Dehradun ..**Respondents**

ORDER

The petitioner, a generating company, had filed this petition for approval of tariff in respect of Rihand Super Thermal Power Station, Stage- I, (hereinafter referred to as “the generating station”) for the period 1.4.2004 to 31.3.2009, based on the Central Electricity Regulatory Commission (Terms and Conditions

of Tariff) Regulations, 2004 (hereinafter referred to as “the 2004 regulations”)
The Commission after hearing the parties, passed an order on 19.6.2006,
determining the tariff of the generating station.

2. On scrutiny of records it is found that the cost of maintenance spares for the purpose of working capital has been computed by taking the capital cost of Rs.95300 lakh as on 31.3.1989. The generating station was in fact declared under commercial operation on 1.1.1991 and the actual capital cost of the generating station as on 31.3.1991(the closing date of the year of commercial operation) was Rs 167734 lakh. Therefore, for the purposes of computation of maintenance spares as a part of working capital, the capital cost of Rs 167734 lakh as on 31.3.1991 had to be considered. This is a ministerial error and is proposed to be corrected through this order.

3. Accordingly paragraphs 44, 45, 46 and 47 of the order dated 19.6.2006 shall be substituted as under :

“ **44.** Working capital has been calculated considering the following elements:

(a) **Coal stock:** The petitioner has revised its claim for interest on working capital from July, 2004 onwards urging that the price of coal has increased w.e.f 15.6.2004. As per provisions of the 2004 regulations, interest on working capital has to be frozen as normative number at the beginning of the tariff setting based on the price and GCV of the fuel during preceding three months and prevailing applicable rate of interest

and is not to be revised based on subsequent revision of the price of fuel or applicable rate of interest. As such, the prayer of the petitioner to allow interest on working capital based on escalated fuel price w.e.f 15.6.2004 cannot be accepted. The coal stock has been worked out for 1.5 months on the basis of operational parameters given in the 2004 regulations and weighted average price and GCV of coal.

(b) **Oil Stock:** The oil stock for 2 months as per the operational parameters and weighted average price of oil has been considered. Weighted average price and GCVs of the fuels indicated by the petitioner and those considered in the calculation for fuel component in working capital and base energy charges are as under

(Rs in lakh)

Description	As claimed	As allowed
Coal Price (Rs./MT)	1050.81	1051.65
Coal GCV (Kcal/kg.)	3929	3929
Price of Secondary fuel oil (Rs./KL)	14112.12	14112.12
GCV of Sec. Fuel oil (Kcal./KL)	9650	9650

(c) **Secondary Fuel Oil :** For secondary fuel oil stock to be provided in the working capital, the value of oil stock for two months corresponding to target availability has been considered. With regard to the cost of fuels, the respondents, Jaipur Vidyut Vitaran Nigam Ltd and Jodhpur Vidyut Vitaran Nigam Ltd, had submitted a certificate issue by the Chartered Accountant of the petitioner, based on PSL register, according to which the average rate of secondary fuel oil for the months of January 2004 to

March 2004, was 9734.31 per KL and for coal, the rate was 1060.35/ MT as against Rs 14122.12/KL for oil and 1060.35/MT for coal as claimed by the petitioner. The respondents had submitted that the price of the secondary fuel oil for preceding three months shall be taken as per PSL register for working out the energy charges and the working capital requirements.

A wide difference in prices of secondary fuel oil based on procurement and based on PSL register is on account of the fact that consumption of secondary fuel oil is very low and procurement is done in small quantities as compared to the stock. On the other hand, there is not much of difference in the prices of coal based on procurement basis and based on PSL register. However, adopting different principles for coal and secondary fuel oil is not appropriate. As such, energy charge and working capital requirements are computed on the latest available procurement price of secondary fuel oil.

Accordingly, the fuel component in working capital works out as follows for the purpose of the tariff, for the period 2004-09.

(Rs in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08 (leap year)	2008-09
Cost of coal for 1.5 months	5605.55	5605.55	5605.55	5620.91	5605.55
Cost of secondary fuel oil for two months	329.66	329.66	329.66	330.56	329.66

(d) **Energy charges** ; The following energy charges for two months is included for the computation of interest on working capital.

(Rs in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08 (leap year)	2008-09
Energy charges for two months	7803.73	7803.73	7803.73	7825.11	7803.73

(e) **O&M Expenses:** O&M expenses for working capital has been worked out for 1 month of O&M expenses approved above are considered in tariff of the respective year.

(f) **Spares:** The petitioner had calculated the value of maintenance spares for the purpose of working capital considering additional capital expenditure in respective years after the date of commercial operation. Starting with the 1% of historical cost as on the date of commercial operation, the cost of maintenance spares for a particular year has been calculated by the petitioner, by escalating the previous year's cost by 6% plus 1% of the additional expenditure of that particular year. The amounts claimed by the petitioner on account of maintenance spares for interest on working capital calculation are as follows :

Year	2004-05	2005-06	2006-07	2007-08	2008-09
Amount claimed for maintenance spares	4948	5245	5560	5894	6247

(Rs in lakh)

The 2004 regulations do not provide for taking into account additional capital expenditure for working out the cost of maintenance spares for the working capital. The cost of maintenance spares for the working capital is, therefore, computed on historical cost of Rs 167734 lakh as on the closing date of financial year in which commissioning of the generating

station occurred, i.e 31.3.1991. The value of spares as on 1.4.2004 works out to Rs 3578 lakh.

(g) Receivables : Receivables will be equivalent to two months of fixed and variable charges allowed. For this purpose, the supporting calculations in respect of receivables are tabulated hereunder:

(Rs. in lakh)

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Variable Charges					
Coal (Rs/kWh)	0.6993	0.6993	0.6993	0.6993	0.6993
Oil (Rs/kWh)	0.0308	0.0308	0.0308	0.0308	0.0308
Rs./kWh	0.7302	0.7302	0.7302	0.7302	0.7302
Variable Charges per year	46822	46822	46822	46951	46822
Variable Charges -2 months	7804	7804	7804	7825	7804
Fixed Charges - 2 months	5405	5472	5543	5616	5694
Receivables	13209	13276	13347	13441	13497

45. The average SBI PLR of 10.25% has been considered as the rate of interest on working capital during the tariff period 2004-05 to 2008-09, in line with the Commission's earlier decision.

46. The necessary details in support of calculation of Interest on Working Capital are appended below:

Calculation of Interest on Working Capital

(Rs. in lakh)

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Coal Stock	5606	5606	5606	5621	5606
Oil stock	330	330	330	331	330
O & M expenses	780	811	843	877	913
Spares	3578	3792	4020	4261	4517
Receivables	13209	13276	13347	13441	13497
Total Working Capital	23502	23815	24145	24531	24862
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest on Working capital	2409	2441	2475	2514	2548

ANNUAL FIXED CHARGES

47. A statement containing the details of capital cost and other related details is annexed to this order. The annual fixed charges for the period 1.4.2004 to 31.3.2009 allowed in this order are summed up as below :

(Rs. in lakh)						
	Particulars	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
1	Interest on Loan	0	0	0	0	0
2	Interest on Working Capital	2409	2441	2475	2514	2548
3	Depreciation	4056	4056	4056	4056	4056
4	Advance Against Depreciation	0	0	0	0	0
5	Return on Equity	16608	16608	16608	16608	16608
6	O & M Expenses	9360	9730	10120	10520	10950
	TOTAL	32433	32835	33259	33698	34162

4. In all other respects, tariff earlier approved by order dated 19.6.2006, shall continue to apply.

Sd/-
(A.H. JUNG)
MEMBER

sd/-
(BHANU BHUSHAN)
MEMBER

sd/-
(ASHOK BASU)
CHAIRPERSON

New Delhi dated the 21th July 2006