

**BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No.90/2000**

**Coram:**

1. Shri S.L. Rao, Chairman
2. Shri D.P. Sinha, Member
3. Shri G.S. Rajamani, Member

In the matter of:

Petition for Exemption from "Free Governor Action" of all the Generating Units installed at Bandel Thermal Power Station (BTPS) and Santaldih Thermal Power Station (STPS) of WBSEB.

And in the matter of

West Bengal State Electricity Board

..... Petitioner

**VS**

1. National Thermal Power Corporation Ltd.
2. Powergrid Corporation of India Limited
3. GRID Corporation of Orissa Ltd.
4. Bihar State Electricity Board
5. Damodar Valley Corporation,
6. Power Department, Govt, of Sikkim, Gangtok.
7. National Hydroelectric Power Corporation Ltd. .... Respondents.

The following were present :-

1. Shri P.K. Ray Chaudhri, GM, WBSEB
2. Shri A. Ray Chaudhuri, Director (P), DVC
3. Shri K.K. Das, GM (SO), Powergrid
4. Shri V. Mittal, DGM (SO), Powergrid
5. Shri T.P.S. Rao, DGM (Law), Powergrid
6. Shri Shyam Wadhera, GM (Commercial), NTPC
7. Shri K.K. Garg, AGM (Commercial), NTPC
8. Shri R. Datt, DGM (Commercial), NTPC.

**ORDER (Date of Hearing :  
02-01-2001)**

The present petition has been filed by West Bengal State Electricity Board (WBSEB), the petitioner, praying for exemption from Free Governor Action in respect of Santaldih TPS (4X120MW) and Bandel TPS (4X80 + 1X210 MW), operated and controlled by the petitioner.

2. In the order dated 30.10.1999 in Petition No. 1/99 relating to finalisation of Indian Electricity Grid Code (IEGC), the Commission had directed that Free Governors shall be provided at thermal units with a capacity of 200 MW and above in all regions, except North-eastern region where Free Governors are to be provided at units of 10 MW capacity and above. A suitable provision to this effect has been made in IEGC - December, 1999. Keeping in view the time required to activate Free Governors, CTU was to announce the time limit by which all the units are to have Free Governors. The use of Free Governor Action was linked with implementation of ABT/ commercial mechanism. In accordance with our order dated 15.12.2000 on Review Petition No. 13/2000, the ABT shall be introduced in the Eastern Region w.e.f. 1.5.2001 and the Free Governors have to be placed in position before that date. In the order dated 30-10-1999, the Commission had granted liberty to any particular unit to approach the Commission to get exemption from the provisions regarding Free Governors for valid reasons. The present petition has been filed against the above background.

3. It has been stated by the petitioner that both the stations, namely Santaldih TPS and Bandel TPS are old stations and with the present status of instrumentation of the units and the extent of availability of AVRs, it is not possible to run their units in Free Governor mode. Accordingly, the petitioner has sought exemption of these stations from Free Governor operation till the auto control for combustion, air control part and other necessary auto control loops are restored and voltage regulator on auto mode is revived. According to the petitioner, without such an exemption, it would be seriously prejudiced.

4. The replies to the petition have been filed by NTPC (Respondent No.1); PGCIL as CTU (Respondent No.2) and GRIDCO (Respondent No.3). None of the other respondents has filed the reply. The prayer has been generally opposed by the above noted respondents in their replies.

5. We have heard the representatives of petitioner and Respondents 1, 2 and 5 present at the hearing today. At the hearing before us the representative of the petitioner informed that first two units of Santaldih TPS are being modernised with new C&I system within 2/3 months and it should be possible to provide Free Governors at this station before 1<sup>st</sup> May, 2001. So far as Bandel TPS is concerned, he informed that R&M scheme has been accepted by PFC. He stated that the petitioner is taking action for renovation and modernisation of the plant, but it will take about 4 years time before the work is completed because of the financial constraints. The representatives of CTU and NTPC, while opposing the exemption sought by the petitioner, stated that with the implementation of ABT/commercial mechanism, Free Governors have to be put in position before 1<sup>st</sup> May, 2001. It was suggested on behalf of CTU that the petitioner could approach CEA for derating of each of the first four units of Bandel TPS to capacity of 50 MW or below so that there is an automatic exemption from the provision of Free Governor. In the alternative, it was suggested that the units might be taken out of the Grid. The representative of NTPC pleaded that the present petition was not maintainable since the matter has already been considered by the Commission in Petition No. 1/99 and directions have been issued. He further stated that Free Governors are required for controlling frequency within a narrow band and there is need to have the load management measures to control wide frequency variations, particularly in Eastern region. The representative of DVC, present at the hearing, informed that discussions were held in the last ERE Board meeting on the question of providing Free Governor operation. He informed that Free Governor was tried on their new 210 MW units at Metia and Bokaro stations, but due to wide frequency operations, Free Governor operation failed after 15 minutes. According to him, the problem for wide frequency variation lies with 2500 MW capacity of captive power plants which are operating at 90% PLF consistently. In his view, Free Governor operation is difficult for old units but in case of new units, Free Governor operation is possible within 49.8 to 50.2 Hz. frequency

variation. He also pointed out that instrumentation system of combustion was not responding appropriately during Free Governor operation.


6. We have carefully gone through the pleadings and considered the submissions made on behalf of the parties at the hearing today. The direction for the provision of Free Governor operation were issued more than a year ago. The petitioner, by taking appropriate steps, could have made necessary arrangements within this period. In the interest of maintenance of grid discipline, requirement of Free Governors is an integral part of IEGC. Therefore, we are not inclined to grant exemption from Free Governor operation. As has been stated at the hearing before us, it shall be possible to place Free Governor in position in respect of Santaldih TPS before 1<sup>st</sup> May, 2001. So far as Bandel TPS is concerned, the petitioner may take appropriate steps to install Free Governors before implementation of ABT/commercial mechanism w.e.f. 1.5.2001. In case the petitioner is unable to provide Free Governors by that date, it may consider the suggestions made on behalf of CTU to derate the capacity of the units or to take the station out of the grid or take any other appropriate steps. In view of this, the petition is dismissed.

7. We have noted with concern that operation of captive power plants is affecting the inter-State grid frequency. We are of the view that some corrective action on the part of CPPs is necessary for maintaining the grid discipline. The control on the captive power plants may be within the purview of SLDCs. But when it has an effect on inter-State transmission, the RLDC is immediately vested with authority over them. CTU is to submit to the Commission the revised draft IEGC. We direct that the review of IEGC should be done without any further delay. The problems arising as a result of operation of captive power plants shall be addressed by the CTU while finalising revised draft IEGC for Commission's consideration.

3-Xj-f

**(G.S.Rajamani)**  
**Member**

New Delhi dated the  
2 January 2001<sup>nd</sup>

  
**(D.P.sinhaf**  
**"Member**

  
**(S.L.Rao)**  
**Chairman**