

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 58/MP/2014

Coram

Shri Gireesh B.Pradhan, Chairperson

Shri M.Deena Dayalan, Member

Shri A.K.Singhal, Member

Smt Neerja Mathur, Member (EO)

Date of Hearing: 15.4.2014

Date of Order: 20.5.2014

In the matter of

Anticipated delay in the declaration of Commercial Operation Date (COD) of Unit-I of the 2 x 250 MW NLC-Thermal Power Station-II (Expansion).

And in the matter of

Seeking Commission's permission to maintain status-quo for injection of infirm power under UI mechanism till declaration of date of the commercial operation or 30.4.2014, whichever is earlier.

And in the matter of

Neyveli Lignite Corporation Limited, Chennai

..... **Petitioner**

Vs

1. Member-Secretary, Southern Regional Power Committee
2. Power Grid Corporation of India Limited, Gurgaon
3. Power Grid Corporation of India Limited, Bhubaneswar
4. POSOCO, Bangalore
5. Tamil Nadu Generation and Distribution Company Ltd., Chennai
6. Kerala State Electricity Board, Thiruvananthapuram
7. State Power Purchase Co-ordination Committee, Bangalore
8. Puducherry Electricity Department, Puducherry
9. Andhra Pradesh Power Co-ordination Committee, Hyderabad

.....**Respondents**

Parties present:

1. Shri S.Ravisankar, NLC
2. Shri K.Nambirajan, NLC
3. Shri K.Kondas Kumar, NLC
4. Ms. Jayanthika Singh, SRLDC, POSOCO
5. Shri N.Sivanandam, TANGEDCO



ORDER

The petitioner, NLC has filed this petition seeking permission for injection of infirm power into the grid from NLC TPS II (Expansion) ("the generating station") till declaration of COD of Unit-I or 30.4.2014 whichever is earlier.

2. Unit-1 of the generating station was first synchronized with the grid on 18.5.2011 with oil firing and on 27.6.2011 with lignite firing. The said unit was able to generate energy in the range of 120-140 MW due to Furnace temperature and the differential pressure in the Combustor zone restrictions and to avoid choking of lignite conveyors. Due to numerous teething problems encountered, the COD of the generating station got delayed resulting in prolonged injection of infirm power.

3. Petition No. 117/MP/2012 was filed by the petitioner seeking permission to maintain status-quo for injection of infirm power and to draw of power for commissioning activities under UI mechanism till declaration of date of the commercial operation of the generating station and the Commission by its order dated 2.11.2012 allowed the petitioner to inject infirm power into the grid for testing including full load testing till 15.2.2013.

4. Since the petitioner could not attain full load due to restriction on combustor temperature and differential pressure in the upper portion of the combustor, shearing of vertical and horizontal spacer rods of FBHE's and failure of refractory etc., Petition No. 15/MP/2013 was filed by the petitioner seeking directions of the Commission for injection of infirm power till declaration of the commercial operation or 30.11.2013 whichever was earlier in terms of Regulation 8(7) of the "Central Electricity Regulatory Commission(Grant of Connectivity, Long Term Access and Medium Term Open Access in inter-State Transmission and related matters) Regulations, 2009

("Connectivity Regulations"). The Commission vide its order dated 4.9.2013 allowed the petitioner to inject infirm power into the grid for testing including full load testing till declaration of COD or 30.11.2013, whichever is earlier.

5. Thereafter, Petition No. 314/MP/2013 was filed by the petitioner for further extension of the period for injection of infirm power till the testing/full load testing is completed and the Commission, in exercise of its power under first proviso to Regulation 8 (7) of the Connectivity Regulations, disposed of the said petition by order dated 18.3.2014 allowing the petitioner to inject infirm power into the grid for testing including full load testing till declaration of COD or 31.3.2014, whichever was earlier. The petitioner was also directed to ensure RGMO operation of the unit during the testing before declaration of COD.

Submissions of the Petitioner

6. The petitioner in this petition has submitted the status of the commissioning work mainly as under:

(a) After attending the re-engineering and modification works of coil supports inside FBHE, Unit-I was lighted up and synchronized with the grid on 13.2.2014.

(b) After brief shutdown due to Drum Manhole gasket leak, Non Metallic Expander Joint leak & Boiler Protection, the unit reached a load of 165 MW on 17.3.2014 and again tripped on 19.3.2014 due to economizer coil puncture. After attending economizer coil puncture, unit was lighted up on 24.3.2014.

(c) Due to the un-anticipated works like Drum Manhole gasket leak, Economizer puncture, etc., there may be some delay in declaring COD. As the unit is in the final stage of commissioning, to take care of exigencies, this petition has been filed seeking extension of time for injection of infirm power till COD of Unit-I or 30.4.2014, whichever is earlier.

7. During the hearing on 15.4.2014, the representative of the petitioner submitted as under:

(a) Though it was expected that the unit would be declared under commercial operation by 30.4.2014, the problems as narrated in the petition have prolonged the declaration of COD and as per present schedule, the COD of the unit is expected in the third week of June, 2014.

(b) The problems faced now relate to refractory failure and also some Super Heater tubes sheared from the supporting structure. The refractory problem which was modified about 3 to 4 times in the past has delayed the project considerably.

(c) In the burner area, the clinker formation existed and there was build up of refractory material in the mouth of the burner and an expert/ R&D personnel from M/s BHEL would visit the site in order to modify the refractory in the Super heater area and the burner area.

(d) The unit is in the final stages of commissioning and in terms of the progress of work at present, the unit could be declared under commercial operation during the third week of June, 2014. According to the planned schedule, the boiler is to be lighted up, load up to 60% is to be raised and later the boiler is to be stopped to study and examine as to what happened inside the boiler. Based on this, operation would be prolonged to raise the load up to 80% and the boiler would be stopped again, to check the inside of the boiler.

8. In response to the observations of the Commission with regard to such type of refractory problem being faced by the petitioner in respect of its other units, the representative of the petitioner clarified that the CFBC boiler was designed based on the composition of lignite and such type of refractory problem occurred only in Circulating Fluidized Bed Combustion (CFBC) Technology based boilers and that no such problem occurred in conventional boilers. The petitioner further submitted that 250 MW CFBC Technology based boiler designed for lignite in the NLC TPS-II generating station of the petitioner was first of its kind in the Asian subcontinent.

9. The representative of SRLDC, POSOCO submitted that the Commission in its discretion may consider the grant of extension of time for injection of infirm power to the generating station of the petitioner. She however prayed that the Commission may direct the petitioner to submit a

concrete time frame upto which such extension is required for injection of infirm power from the said unit of the generating station.

10. Taking into consideration the submissions of the parties and keeping in view the difficulties faced by the petitioner, we are inclined to grant extension of time to the petitioner for injection of infirm power from the generating station for a further period up to 30.6.2014. The extension of time granted as above shall not automatically entitle the petitioner for IEDC/IDC for the delay in declaration of COD from the scheduled COD and the same shall be considered on merits at the time of determination of tariff of the unit.

11. In the meanwhile, the petitioner is directed to file a detailed report of M/s BHEL and Boiler expert as regards the recurring problems faced in the CFBC boiler, including the causes of frequent refractory failure inside the boiler. Any prayer by the petitioner for further extension of time beyond 30.6.2014 shall not be entertained and the petitioner shall ensure that the unit is declared under commercial operation by the said date.

12. The petition is disposed of in terms of the above.

Sd/-
[Smt. Neerja Mathur]
Member

Sd/-
[A.K.Singhal]
Member

Sd/-
[M. Deena Dayalan]
Member

Sd/-
[Gireesh B.Pradhan]
Chairperson