

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 72/MP/2014

Coram:

Shri Gireesh B.Pradhan, Chairperson

Shri M. Deena Dayalan, Member

Shri A.K.Singhal, Member

Date of Hearing : 24.4.2014

Date of Order : 12.5.2014

In the matter of

Petition seeking Commission`s permission to continue injection of infirm power till declaration of COD of Unit-I of Kudankulam Nuclear Power Project or 22.7.2014, whichever is earlier.

And

In the matter of

Nuclear Power Corporation of India Ltd.,
Nabhikiya Urja Bhawan,
Anushaktinagar, Mumbai-400 094

...Petitioner

Vs

1. The Member Secretary, Southern Regional Power Committee,
29, Race Course Cross Road, Bangalore-560 009
2. Executive Director (SEF & CE)
Power Grid Corporation of India Limited
"Saudamini", Plot No. 2, Sector-29,
Near IFFCO Chowk, Gurgaon-122 001 (Haryana)
3. General Manager (Commercial)
Power Grid Corporation of India Limited,
Southern Regional Transmission System-II
Pragati Mahalakshmi, South Block (2nd and 3rd Floor)
No. 62, 3rd Cross MEI Road, Industrial Suburb
Yashwantpura, Bangalore-560 022
4. Executive Director
Power System Operation Corporation (POSOCO) SRLDC
29, Race Course Road, Bangalore-560 009.

5. The Chief Engineer (Planning)
T.N. Generation and Distribution Corporation Ltd.
6th Floor, Eastern Wing, 144 Anna Salai, Chennai-600 002
6. The Chief Engineer/Corporate Planning TRAC
Kerala State Electricity Board,
8th Floor, Vidyuthi Bhawanam,
Pattom, Thiruvananthpuram-695 004
7. Director (Commercial)
State Power Purchase Co ordination Committee
Power Company of Karnataka Ltd.
Kaveri Bhawan, Bangalore-560 009.
8. The Superintending Engineer
Puducherry Electricity Department
137, NSC Bose Road, Purucherry-605001
9. Chief Engineer (Commercial)
A.P. Power Coordination Committee
Vidyut Soudh, Khairatabad
Hyderabad-500 082

..Respondents

Parties present:

None

ORDER

This petition has been filed by the petitioner, Nuclear Power Corporation of India Ltd under Clause (7) of Regulation 8 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 and Central Electricity Regulatory Commission (Unscheduled interchange charges and related matters) Regulations, 2012 with the following prayers:

"(a) Permit injection of infirm power into the grid from KNPP-I till declaration of COD of KKNPP-1 or 22.7.2014, whichever is earlier; and

(b) Pass any other order as it may deem fit by the Hon`ble Commission."

2. Kudankulam Nuclear Power Project ('the project') of the petitioner is located at Kudankulam, Tirunelveli District in the State of Tamil Nadu and is being implemented in two stages consisting of Unit-I and Unit-II of 1000 MW each. The project is being setup with the technical cooperation of Russian Federation which is based on WER-1000 type of reactors. The first unit of the project has been test synchronized on 22.10.2013 and numerous commissioning tests are to be performed in 3 Phases of commissioning of the unit to evaluate the system responses to various transients. The tests results are to be evaluated internally and submitted to Regulatory Authority, namely Atomic Energy Regulatory Board (AERB) for review and acceptance. The consent for proceeding to the next Phase of commissioning is obtained from Regulatory Authorities which is repetitive process till AERB grants permission for continuous operation of the unit at 100% power before declaration of COD.

3. The petitioner has submitted that before declaration of COD of the project, commissioning activities of the project are divided into three main phases, namely Phases, A, B and C. According to the petitioner, initially, Phases A and B commissioning activities which mainly focus on individual equipment and system commissioning are completed. The commissioning

activities of Phase-C comprises of three stages, namely Phases C1, C2 and C3 focus on evaluation of system performance to various transients against acceptance criteria. The petitioner has submitted that during each stage, tests are carried out on the reactor systems as well as turbine and feed water supply systems. The petitioner has enumerated the test schedule of various phases as under:

S.No.	Activity	Start date	End date
1.	Phase C1	15.8.2013	3.1.2014
2.	Phase C2	24.1.2014	In progress
3.	Phase C3	This activity is likely to be started in the fourth week of April, 2014 and will be requiring approximately 35 days for completion.	

4. The petitioner has submitted that tests of Phase A and Phase B of Unit-1 of the project have been completed before synchronization. Subsequently, all test of Phase C1 were carried out and continued till 3.1.2014. On 24.1.2014, clearance from AERB was obtained to carry out Phase C2 activities which were started on 24.1.2014. The petitioner has submitted that the following transients and dynamic tests are conducted:

- (i) Testing of reactor characteristics;
- (ii) Testing of loss of power to the station;
- (iii) Turbine trip test;
- (iv) Test of turbine partial load changes; and
- (v) Testing of tripping of one feed water pump.

5. The petitioner has submitted that since number of tests involve electrical load connection or disconnection of the project from the grid, permission of SLRDC was required to be taken for conduct of tests. On number of times as per the request of SRLDC, tests involving load changes were postponed to accommodate the grid exigencies requirements. According to the petitioner certain deficiencies were found during testing which needed shutdown of the reactor to rectify and repeat the tests.

6. The petitioner has submitted that Phase C2 is expected to be completed by 5.4.2014. The process of review of Phase 2 tests results, submission of statutory application for commencement of Phase 3 and review of the results by AERB before according consent to carry out Phase 3 commissioning activities will take about 20 more days. Therefore, the commissioning activities of Phase C3 are expected to be commenced by 25.4.2014 which involves test of reactor, turbine-generator, secondary feed water system and control systems. Phase C3 is likely to be completed within 50 days which includes regulatory review for clearance to grant licence to operate the unit.

7. The petitioner in its petition, while praying for extension of time for testing, has submitted that the commercial operation of the Unit-1 of the project

is not possible within stipulated period of 6 months from the date of initial synchronization. The petitioner has requested to permit injection of infirm power into the grid up to the date of commercial operation of Unit-I or till 22.7.2014.

8. The matter was listed for hearing on 24.4.2014. None was present on behalf of the petitioner and respondents. Since the period of six months expired on 22.4.2014, we are inclined to grant time to the petitioner to inject infirm power and continue with the testing activities.

9. We have considered the prayer of the petitioner. The petition has been filed under Clause (7) of Regulation 8 of the Connectivity Regulations, which provides as under:

“(7) Notwithstanding anything contained in clause(6) of this regulation and any provision with regard to sale of infirm power in the PPA, a unit of a generating station, including a captive generating plant which has been granted connectivity to the grid shall be allowed to inject infirm power into the grid during testing including full load testing before its COD for a period not exceeding six months from the date of first synchronization after obtaining prior permission of the concerned Regional Load Despatch Centre:

Provided that the Commission may allow extension of the period of testing including full load testing, and consequent injection of infirm power by the unit, beyond six months, in exceptional circumstances on an application made by the generating company at least two months in advance of completion of six month period:

Provided further that the concerned Regional Load Despatch Centre while granting such permission shall keep the grid security in view:

Provided also that the onus of proving that the injection of infirm power from the unit(s) of the generating station is for the purpose of testing and commissioning shall lie with the generating company and the respective RLDC shall seek such information on each occasion of injection of power before COD. For this, the generator shall provide RLDC sufficient details of the specific testing and commissioning activity, its duration and intended injection etc.”

Provided also that the infirm power so injected shall be treated as Unscheduled Interchange of the unit(s) of the generating station and the generator shall be paid for such injection of infirm power in accordance with the provisions of the Central Electricity Regulatory Commission (Unscheduled Regulations, 2009 as amended from time to time.”

10. Regulation 8 (7) of the Connectivity Regulations, as amended on 21.3.2012, provides that a generating company which has been granted connectivity to the grid shall be allowed to inject infirm power into the grid during testing including full load testing before the COD for a period not exceeding 6 months from the date of first synchronization after obtaining the prior approval of the concerned RLDC. It is noted that synchronization of Unit-1 of the project has taken place on 22.10.2013. However, commercial operation of the unit has not been declared for various reasons.

11. As per the schedule, commissioning tests under Phase C1 and Phase C2 were completed on 3.1.2014 and 5.4.2014, respectively and commissioning activities under Phase C3 will start from 25.4.2014, which involves test of reactor, turbine-generator, secondary feed water system, control systems, full load rejection tests etc. Phase C3 is expected to be completed by 1st week of June 2014 and thereafter, the process of regulatory approval from Atomic Energy Regulatory Board shall be started by the petitioner. Unit-1 of the project is expected to be declared for commercial operation by 22.7.2014. Taking into consideration the submissions of the petitioner and the fact that successful testing of reactor, turbine-generator, feed water pump system and the control

and protection system of different transients which are mandatory as per AERB before declaring COD of the project, we allow the extension of time for injection of infirm power into the grid for the purpose of commissioning tests including full load test of Unit-1 from 22.4.2014 up to the date of commercial operation of Unit-I or till 22.7.2014, whichever is earlier. We expect the petitioner to take all efforts to ensure the commercial operation of Unit-1 of the project by this date.

12. With the above, the Petition No. 72/MP/2014 is disposed of.

Sd/-
(A.K.Singhal)
Member

sd/-
(M Deena Dayalan)
Member

sd/-
(Gireesh B.Pradhan)
Chairperson