

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

2nd July, 2015

DRAFT NOTIFICATION

No.L-1/18/2010-CERC:In exercise of powers conferred under clause (h) of subsection (1) of Section 79 read with clause (g) of sub-section (2) of Section 178 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, the Central Electricity Regulatory Commission hereby makes the following regulations to amend the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 as amended from time to time (hereinafter referred to as “the Principal Regulations”).

1. Short title and commencement

(1) These Regulations may be called the Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Fourth Amendment) Regulations, 2015.

(2) These Regulations shall come into force with effect from date of publication in official Gazette.

2. Amendment in Regulation 2 of Principal Regulations-Following new clauses shall be added after clause (iiii) of sub-Regulation (1) of Regulation 2 of Principal Regulations as under, namely:

“(jjjj) Date of Commercial Operation or 'COD' shall have the same meaning as provided in Sub-Regulation of Regulation 6.3A.1 of these Regulations.

(kkkk) Trial Operation or Trial Run shall have the same meaning as provided in Sub-Regulation of Regulation 6.3A.2 of these Regulations.

(llll) Technical Minimum Schedule in respect of ISGS shall have the same meaning as provided in Sub-Regulation 6.3B of this Regulation.

3. Amendment in Regulation 6.1 of the Principal Regulations- Following clause shall be added after clause (d) of Principal Regulations:

“(e) Procedure for declaration of commercial operation of inter-State generating stations and technical minimum schedule for operation of the generating stations”

4. Amendment in Regulation 6.2 of the Principal Regulations – Following shall be added at the end of first para of Regulation 6.2 of the Principal Regulations:

“This code also provides for the procedure and mechanism for declaration of commercial operation of the inter-State generating stations and technical minimum schedule for operation of inter-State generating stations.”

5. Addition of new Regulations after Regulation 6.3 of the Principal Regulations: The following Regulations shall be added after Regulation 6.3 of the Principal Regulations:

“6.3A Commercial operation of inter-State Generating Stations

1. Date of commercial operation in case of a unit or block of thermal generating station shall mean the date declared by the generating company after demonstrating the unit capacity corresponding to its Maximum Continuous Rating (MCR) or the Installed Capacity (IC) or name plate rating on designated fuel through a successful trial run and after getting clearance from the respective RLDC or SLDC, as the case may be, and in case of the generating station as a whole, the date of commercial operation of the last generating unit or block of the generating station:

Provided that

(i) Where the beneficiaries/buyers have been tied up for purchasing power from the generating station, the trial run shall commence after a notice of not less than seven days by the generating company to the beneficiaries/buyers and concerned RLDC or SLDC, as the case may be.

(ii) Where the beneficiaries/buyers have not been tied up for purchasing power from the generating station, the trial run shall commence after a notice of not less than seven days by the generating company to the concerned RLDC or SLDC, as the case may be.

(iii) The generating company shall certify that:

(a) the generating station meets the relevant requirements and provisions of the technical standards of Central Electricity Authority (Technical Standards for Construction of Electrical plants and electric lines) Regulations, 2010 and

Indian Electricity Grid Code as applicable:

(b) The main plant equipment and auxiliary systems including Balance of Plant, such as Fuel oil System, Coal handling plant, DM plant; pre-treatment plant, fire fighting system, Ash Disposal system and any other site specific system have been commissioned and are capable for full load operation of units on sustained basis.

(c) Permanent electric supply system including emergency supplies and all necessary instrumentation, control and protection systems and auto loops for full load operation of unit have been put in service.

(iv) The certificates as required under clause (iii) above shall be signed by CMD/CEO/MD of the company and a copy of the certificate shall be submitted to the Member Secretary of the concerned Regional Power Committee and the concerned RLDC/ SLDC before declaration of COD. The generating company shall submit approval of Board of Directors to the certificates as required under clause (iii) within a period of 3 months of the COD.

(v) Trial run shall be carried out in accordance with sub-Regulation 6.3A.3 of this Regulation.

(vi) Partial loading may be allowed with the condition that average load during the duration of the trial run shall not be less than Maximum Continuous Rating, or the Installed Capacity or the Name Plate Rating.

(vii) For declaration of COD, the unit capacity demonstrated during trial run shall not be less than 95% of the name plate rating or the contracted capacity provided unit is derated by the generating company to a capacity corresponding to and considering grid response to 105% of the capacity so derated in terms of IEGC.

(viii) Respective Load Despatch Centre shall accord clearance for declaration of COD within 7 days of receiving the generation data based on the trial run.

(ix) If RLDC/ SLDC notices any deficiencies in trial run, it shall be communicated

within seven days.

(x) Scheduling shall commence from 00:00 hrs after completion of the trial run from date of Commercial Operation of the unit.

2. Date of commercial operation (COD) in relation to a generating unit of hydro generating station including pumped storage hydro generating station shall mean the date declared by the generating company after demonstrating peaking capability corresponding to the Installed Capacity of the generating station through a successful trial run , and after getting clearance from the respective RLDC/SLDC, as the case may be, and in relation to the generating station as a whole, the date of commercial operation of the last generating unit of the generating station.

Provided that:

(i) Where beneficiaries have been tied up for purchasing power from the generating station, trial run shall commence after a notice of not less than seven days by the generating company to the beneficiaries and concerned RLDC or SLDC as the case may be;

(ii) Where the beneficiaries/buyers have not been tied up for purchasing power from the generating station, the trial run shall commence after a notice of not less than seven days by the generating company to concerned RLDC/ SLDC, as the case may be.

(iii) the generating company shall certify that:

(a) the generating station meets the relevant requirement and provisions of the technical standards of Central Electricity Authority (Technical Standards for Construction of Electrical plants and electric lines) Regulations, 2010 and Indian Electricity Grid code as applicable:

(b) the main plant equipment and auxiliary systems including Drainage Dewatering system, Primary and Secondary cooling system, LP and HP air compressor, Fire fighting system, etc, have been commissioned and are capable for full load operation of units on sustained basis.

(c) permanent electric supply system including emergency supplies and all necessary instrumentations Control and protection systems and auto loops for full load operation of unit are put in service.

(iv) The certificates as required under clause (iii) above shall be signed by CMD/CEO/MD and a copy of the certificate shall be submitted to the Member Secretary of the concerned Regional Power Committee and concerned RLDC or SLDC before declaration of COD. The generating company shall submit approval of Board of Directors to the certificates as required under clause (iii) within a period of 3 months of COD.

(v) Trial run shall be carried out in accordance with sub-Regulation 6.3A.3 of this Regulation.

(vi) For declaration of COD, the unit Capacity demonstrated during trial run shall not be less than 95% of the name plate rating provided unit is derated by the generating company to a capacity corresponding to and considering grid response to 110% of the capacity so derated in terms of IEGC.

(vii) In case a hydro generating station with pondage or storage is not able to demonstrate peaking capability corresponding to the installed capacity for the reasons of insufficient reservoir or pond level, the date of commercial operation of the last unit of the generating station shall be considered as the date of commercial operation of the generating station as a whole, and it will be mandatory for such hydro generating station to demonstrate peaking capability equivalent to installed capacity of the generating unit or the generating station as and when such reservoir/pond level is achieved:

(viii) If a run-of-river hydro generating station or a generating unit thereof is declared under commercial operation during lean inflows period when the water inflow is insufficient for such demonstration of peaking capability, it shall be mandatory for such hydro generating station or generating unit to demonstrate peaking capability equivalent to installed capacity as and when sufficient water inflow is available. In case of failure to demonstrate the peaking capacity the unit capacity shall be derated to the capacity demonstrated.

(ix) Respective Load Dispatch Centre shall accord clearance within 7 days of receiving the generating data based on the trial run.

(x) If RLDC/ SLDC notices any deficiency in trial run, it shall be communicated within 7 days.

(xi) Scheduling shall commence from 00:00 hrs after completion of trial run from date of Commercial Operation of the unit.

3. Trial Operation or Trial Run-

Trial Operation or Trial Run in relation to a thermal generating station or a unit thereof shall mean successful running of the generating station or unit thereof on designated fuel at Maximum Continuous Rating or Installed Capacity or Name Plate Rating or the Derated Capacity for continuous period of 72 hours and in case of a hydro generating station or a unit thereof for a continuous period of 12 hours:

Provided that the short interruptions, for a cumulative duration of 4 hours, shall be permissible, with corresponding increase in the duration of the test. Cumulative Interruptions of more than 4 hours shall call for repeat of trial operation or trial run.

Provided further that partial loading may be allowed with the condition that average load during the duration of the trial run shall not be less than Maximum Continuous Rating, or the Installed Capacity or the Name Plate Rating.

Provided that where the beneficiaries have been tied up for purchasing power from the generating station, the trial run shall commence after a notice of not less than seven days by the generating company to the beneficiaries.

4. In the event of inconsistency between the provisions relating to trial and commercial operation as specified in sub-Regulation 6.3A.1 to 6.3A.3 of these regulations and the provisions in Central Electricity Regulatory Commissions (Terms and Conditions of Tariff) Regulations, 2014, the provisions of these regulations shall prevail.

6.3B – Technical Minimum Schedule for operation of Generating Stations

1. The technical minimum schedule for operation in respect of ISGS shall be 55% of MCR loading of unit/units of generating stations.
2. A generating station may be directed by concerned RLDC to operate below 85% but at or above the technical minimum schedule on account of grid security or due to the less schedule given by the beneficiaries
3. Where the generating station regulated by this Commission is directed by the concerned RLDC to operate at technical minimum schedule, the generation station may be compensated subject to the prudence check by the Commission in due consideration of average unit loading based on forced outages, planned outages, PLF, generation at generator terminal, energy sent out ex-bus, number of start-stop, secondary fuel oil consumption and aux energy consumption etc on an application filed by the generating company duly supported by relevant data verified by RLDC/SLDC.

Provided that in case of coal/lignite based stations, following station heat rate degradation shall be considered for the purpose of compensation:

S.No.	Unit loading as a % of Installed Capacity of the Unit	Increase in SHR (for supercritical units) (%)	Increase in SHR (for sub-critical units) (%)
1	85-100	Nil	Nil
2	75-84.99	1.25	2.25
3	65-74.99	2	4
4	55-64.99	3	6

Provided further where the scheduled generation falls below the technical minimum schedule, the generating station shall have the option to go for reserve shut down and in such cases start up fuel cost over and above 7 start/ stop in a year. shall be considered as additional compensation:

Provided also that in case of gas based station compensation shall be decided

based on the characteristic curve provided by the manufacturer and after prudence check of the actual operating parameters of Station Heat Rate, Auxiliary Energy Consumption, etc.:

Provided also that compensation so worked out by the Commission after prudence check shall be borne by the entity who has caused the plant to be operated at technical minimum. The name of the entity shall be mentioned in the order to be issued by the Commission.

4. In case of generating stations not regulated by the Commission, generating company shall have to factor above provisions in their PPAs for sale of power in order to claim compensations for operating at the technical minimum schedule.

5. The generating companies shall keep the record of the emission levels from the plant due to part load operation and submit a report for each year to the Commission by 31st May of the year.

6. NLDC in consultation with RLDCs/SLDCs, generating companies, beneficiaries and buyers of all regions at RPC forums, shall prescribe a Operating Procedure which shall be followed in certain specific grid conditions such as sudden load throw off or unit tripping significantly endangering grid security, identifying generating stations based on merit order despatch/ stacking to be backed down in such contingencies for each region.”

(Shubha Sarma)
Secretary

Note: Principal Regulations were published in Gazette of India, Extraordinary, Part-III, Section 4 at Serial No. 115 on 28.4.2010, the first amendment to the Principal Regulations were published in the Gazette of India, Extraordinary, Part-III, Section 4 at Serial No.60 on 6th March, 2012 and the second amendment to the Principal Regulations were published in the Gazette of India, Extraordinary, Part-III, Section 4 at Serial No.08 on 6th January, 2014.