



भारत सरकार/ Government of India
विद्युत मंत्रालय / Ministry of Power
केन्द्रीय विद्युत प्राधिकरण / Central Electricity Authority
ईंधन प्रबन्धन प्रभाग / Fuel Management Division

सं.: के.वि.प्रा./योजना/एफ.एम./1/42/2017/6055 — 6113

दिनांक: 08.11.2017

सेवा में / To,

संलग्न सूची के अनुसार / As per list attached.

विषय: कोयले पर आधारित ताप-विद्युत केंद्रों पर कोयले के स्टॉक के मॉनिटरिंग की नई पद्धति।

Sub: New methodology for monitoring of coal stock at coal based thermal power plants

Sir,

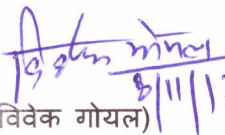
Central Electricity Authority monitors coal stock position of coal based thermal power stations in the country and a daily coal report is published based on the online data submitted by the power plants on National Power Portal (NPP). The report highlights the plants having critical/super-critical stock of coal, which have the linkage with CIL/SCCL.

2. As you are aware that Ministry of Power has introduced “flexibility in utilization of domestic coal for reducing the cost of power generation” in 2016, where power utilities have the flexibility to use their coal in any of the power plants to reduce the cost of generation of Power. In this regard, all the States and Central power utilities have signed supplementary agreement with CIL/Subsidiaries for aggregation of their long-term coal linkages. Many States/Central power utilities have also started implementing the scheme by utilizing their coal in their more efficient power plants.

3. In view of the above, it was felt that the methodology being used for monitoring of daily coal stock by CEA may be reviewed. In this regard, a workshop was organized on 28th August, 2017 at New Delhi and a revised draft methodology for monitoring of daily coal stock was circulated to all the stakeholders for their comments. Based on the comments received, the methodology for monitoring of coal stock at coal based thermal power plants has been finalized.

4. The new methodology for monitoring of coal stock at coal based thermal power plants by CEA has been uploaded on CEA website (www.cea.nic.in) and also being forwarded to all stake holders through mail. The daily report for monitoring of coal stock at coal based power plants would now be based on the new methodology.

भवदीय,


(विवेक गोयल)

मुख्य अभियंता (एफ.एम.)

List of addressee:

States and CGSs:

1. The Chairman & Managing Director, NTPC Ltd., Core 7, Scope Complex, Lodhi Road, New Delhi – 110003.
2. The Chairman, Damodar Valley Corporation, DVC Tower, Ultadanga, VIP Road, Kolkata – 700054.
3. The Managing Director, Haryana Power Generation Corp. Ltd., Room No.411, 3rd Floor, Urja Bhawan, C-7, Sector-6, Panchkula, Haryana.
4. The Chairman, Punjab State Power Corporation Ltd, The Mall, Patiala 147 001.
5. The Chairman & Managing Director, Rajasthan Rajya Vidyut Utpadan Nigam Ltd., Vidyut Bhawan, Jyoti Nagar, Janpath, Jaipur – 302 005
6. The Managing Director, Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. Shakti Bhawan, 14 Ashok Marg, Lucknow – 226 001.
7. The Chairman, Chhattisgarh State Power Generation Company Ltd, Dangania, P.O. Sunder Nagar, Raipur – 492 013.
8. The Chairman & Managing Director, Gujarat State Electricity Corporation Ltd., Sardar Patel Vidyut Bhawan, Race Course, Vadodara – 390 007.
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17. The Chairman-cum Managing Director, Bihar State Power Holding Company Ltd., First Floor, Vidyut Bhawan, Baily Road, Patna- 800 001.
18. The Chairman cum Managing Director, Jharkhand Urja Upadan Nigam Ltd., Engineering Building, Hatia, HEC, Dhurwa, Ranchi, Jharkhand – 834 004.
19. The Managing Director, Odisha Power Generation Corp. Ltd., Zone A, 7th Floor, Fortune Tower, Chandrashekharpur, Bhubaneshwar – 751 022
20. The Managing Director, The West Bengal Power Development Corp. Ltd., Bidyut Unnayan Bhawan, 3/C LA Block, Sector-III, Salt Lake City, Kolkata – 700 098.
21. The Managing Director, Tenughat Vidyut Nigam Ltd, Hinoo, Doranda, Ranchi-834 002.
22. The Chairman, Durgapur Projects Ltd., 1593, Rajdanga Main Road, Kolkata-West Bengal- 700 107.

Joint Ventures

23. The Chairman & Managing Director, Kanti Bijlee Utpadan Nigam Ltd., NTPC Bhawan, Core-7, Scope Complex, Lodhi Road, New Delhi-110003.
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28. The General Manager (CA &PM), Aravali Power Co. Pvt. Ltd., 1st floor, Pawan Hans towers, C-14, Sector-1, NOIDA -201301 (UP).
29. The Chief Executive Officer, Bhartiya Rail Bijlee Company Ltd. (BRBCL), First Floor, Vidyut Bhawan II, Bailey Road, Patna-800 001.

Private TPSs

30. The Managing Director, Torrent Power Ltd, Torrent House, Off Ashram Road, Ahmedabad – 380009.
31. The Chairman Cum-Managing Director, Reliance Energy Ltd., Reliance Energy Centre, Santa Cruz (E), Mumbai 400055.
32. The Managing Director, M/s Adani Power Ltd., Achalraj, Opp Mayor Bungalow, Law Garden, Ahmedabad 380 006 ,Gujarat,
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35. The Chief Executive Officer, Sterlite Energy Limited, Jharsuguda, Orissa.
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42. The Vice President (Thermal Projects), MB Power Limited. 235, Okhla Industrial Estate, Phase-III, New Delhi-110020. .

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53. The Managing Director, Adhunik Power & Natural Resources Ltd., Lansdowne Towers, 2/1A, Sarat Bose Road Kolkata 700020, West Bengal, INDIA
54. The Managing Director, Jhabua Power Ltd., 6th Floor Vatika City Point, M.G. Road, Gurgaon (Haryana)-122 002.
55. The Managing Director, Ind-Barath Energy (Utkal) Limited, Plot no. 30-A, Road no. 1, Film Nagar, Jubilee Hills, Hyderabad- 500 096.
56. The Managing Director, Essar Power Ltd., Essar House, 11th Floor, 11 KK Marg, Opposite Racecourse, Mahalaxmi, Mumbai-400034.
57. The Managing Director, DB Power Ltd., 3rd Floor, Naman Corporate Link, Opposite Dena Bank, C-31, Block G, Bandra Kurla Complex, Bandra (E), Mumbai- 400 051 .
58. The Managing Director, GVK Power and Infrastructure Ltd., Paigah House, 156-159, SP Road, Secunderabad (Telangana)-500003.
59. The Managing Director, R.K.M. Powergen Private Limited, 14/45 Dr.Giriappa Road, T.Nagar, Chennai - 600017,

Central Electricity Authority
Fuel Management Division

GUIDELINES FOR PREPARING DAILY COAL REPORT

1. Introduction

Central Electricity Authority monitors daily coal stock position of all coal based thermal power plants (presently 112 No.) in the country having Fuel Supply Agreement (FSA) with CIL/SCCL. The daily coal report is published based on the online data submitted by the power plants on National Power Portal (NPP) on daily basis. The daily coal report shows stock position of coal available at the plant and number of days of coal stock sufficient to run the plant as per consumption pattern. The report highlights the plants having critical/super-critical stock of coal based on certain criteria.

2. Coal Supply to Thermal Power Plants

- a. As per the extant policy of Ministry of Coal, supply of coal is being made to a thermal power plant as per Annual Contracted Quantity (ACQ) for which FSA (Fuel Supply Agreement) has been signed between power plant and the coal company.
- b. For pre-2009 plants, the ACQ under FSA is based on the average coal consumption of the plant and for post-2009 plants (commissioned after 31st March, 2009), the ACQ under FSA is based on coal requirement at 85% PLF.
- c. The coal is supplied by the coal companies with minimum commitment level (Trigger level). The trigger level for pre-2009 plants is at 90% of ACQ while for post-2009 plants, it is 75% of ACQ since 2016-17. Further, the coal supply to post-2009 plants may be increased based on coal availability.
- d. The obligation to supply coal as per trigger level (minimum commitment level) of ACQ is less than the annual requirement of the power plants for generation at full capacity. The level of supply to any power plant would not be sufficient whenever the plant is required to run at higher PLF. However, CIL is supplying coal to many power plants more than the minimum commitment level.
- e. As per FSA, the plant submits monthly programme for offtake of coal against the pro-rata monthly coal allocation by the coal company. Thereafter, the coal company processes the case for issuance of the consent of the coal programme. Accordingly, Railways sanction rake programme. Finally, based on the sanctioned rail programme, the coal company indents the programme to the Railways for allotment and placement of wagons in conveniently spaced intervals during the concerned month. The Railways then allot the rakes accordingly.

3. Coal Stocking Norms (Normative Coal Stock):

The normative coal stock is to be calculated based on the coal requirement at 85% PLF. The norms for number of days of coal stock to be kept in the power plant depends on the distance of the power plant from the mine-head are as per details given below:

Distance of Power Plant	Number of Days of Stock
Pit-head Station	15
Upto 500 kms away from Coal Mine	20
Upto 1,000 kms away from Coal Mine	25
Beyond 1,000 kms away from Coal Mine	30

4. Criteria for Critical/Super-critical Coal Stock

The coal stock at the power plant is categorized as critical or super critical coal stock based on the following criteria:

Criticality	Plants	Criteria
Critical stock	Pit-head Plants	coal stock less than 5 days
	Non Pit-head Plants	coal stock less than 7 days
Super-critical stock	Pit-head Plants	coal stock less than 3 days
	Non Pit-head Plants	coal stock less than 4 days

5. Current practice for Calculation of number of days of coal stock

The number of days for which coal is available to run the plant is calculated based on the daily coal requirement and total stock of coal at the plant. The daily coal requirement is calculated based on the average coal consumption of the plant during previous 10 days with a minimum of coal requirement at 40% PLF. The average consumption of a plant is updated every 10 days.

6. Criteria for not showing plant with critical/supercritical coal stock

Certain plants are not shown having critical/supercritical stock even if the coal stock available at the plant is as per criteria indicated in para 4 above, based on decisions taken at various levels:

- a. If coal supply is affected/regulated by coal companies to power plant on account of outstanding dues.
- b. In case power plant fails to lift coal
- c. If coal supply to the power plant is more than trigger level and the coal company has expressed its inability to supply more coal than trigger level, but offered coal from other sources (*as is where is basis*) as per sub-group decision.
- d. Plant having unloading constraints.
- e. Plant not submitting or submitting less coal program.
- f. Plant diverting coal to some other plant.
- g. Plant having bridge linkage.

7. Inter-Ministerial Sub-Group

An Inter-Ministerial Sub-Group has been constituted by the Infrastructure Constraints Review Committee headed by Joint Secretary (Coal) with representatives of Ministry of Power, Ministry of Coal, Ministry of Railways, Ministry of Shipping, CEA, CIL, SCCL and NTPC. The Sub Group discusses the coal supply position, based on Daily Coal Report, on weekly basis to ensure supply of coal to the power plant having less coal stock.

8. Flexibility in utilization of domestic coal

The Government on 04.05.2016 approved the proposal for allowing flexibility in utilization of domestic coal amongst power generating stations to reduce the cost of power generation. Under the scheme, the Annual Contracted Quantity (ACQ) of each individual coal linkage as per Fuel Supply Agreement is to be aggregated as consolidated ACQ for each State and Company owning Central Generating Stations instead of individual generating station, coal subsidiary-wise. The State/Central Gencos would have flexibility to utilize their coal in most efficient and cost effective manner in their own power plants as well as by transferring coal to other State/Central Gencos Power plants for reducing cost of generation. Accordingly, Power utilities have signed supplementary agreement with CIL/subsidiaries and have started giving coal program matrix as per their aggregated ACQ.

9. Need for revising Daily coal monitoring methodology

After signing of supplementary agreement for aggregation of coal quantity with subsidiaries of CIL/SCCL, many States/Central power utilities have started implementing the scheme by allocating their coal from aggregated coal quantity in their power plants, irrespective of plant specific ACQ. This has resulted in diverting more coal to some of their plants even though the ACQ of the plant may be less or vice versa. In view of this, it has become necessary to revise the methodology of monitoring the daily coal stock.

10. Workshop of Stakeholders

To address the issue, Central Electricity Authority organized a Workshop to revise the monitoring methodology for daily coal monitoring on 28.08.2017. Representatives of Ministry of Coal, Ministry of Power, Ministry of Railways, Coal India Ltd., SCCL and various State/Central power utilities attended the Workshop. The proposed methodology was discussed during the Workshop. Based on the discussions/suggestions made by various stakeholders during the Workshop, revised methodology is being proposed.

11. Proposed monitoring methodology

a. Calculation of normative coal stock:

All the coal based thermal power plants need to maintain Normative coal stock based on the number of days as given in para 3 above. This stock may be used by the power plant, in case coal company is not able to supply adequate coal due various reasons and will avoid the stock at the plant being depleted to critical level.

b. Calculation of daily coal requirement for the purpose of assessing number of days of stock:

The daily coal requirement of a plant will be the average coal consumption of previous 7 days (rolling average), in order to capture precise consumption pattern of the plant. However, in case the average coal consumption calculated above is less than coal requirement of the plant at 55% PLF, the daily coal requirement will be fixed at requirement of the plant at 55% PLF, up till the level of normative coal stock mentioned in para 3 is achieved.

Revised Criteria for Critical/Super-critical Coal Stock

The coal stock at the power plant is categorized as critical or super critical coal stock based on the following criteria:

Criticality	Plants	Criteria
Critical stock	Pit-head Plants	coal stock less than 5 days
	Non Pit-head Plants	coal stock less than 7 days
	Non-Pit-head Plant (More than 1500 kms)	coal stock less than 9 days
Super-critical stock	Pit-head Plants	coal stock less than 3 days
	Non Pit-head Plants	coal stock less than 4 days
	Non-Pit-head Plant (More than 1500 kms)	coal stock less than 5 days

c. Methodology for Calculation of Materialisation by coal companies:

The current practice of calculating pro-rata materialization on cumulative basis adopted by Coal India Limited is based on quantity of coal despatched and the pro-rata ACQ till date.

Following methodology is proposed to be adopted after introduction of flexibility in utilization of domestic coal:

- i. The State/Central power utility would submit monthly coal program matrix as per their aggregated ACQ (AACQ) to coal company-wise, one month in advance.
- ii. Total program may be within the limit of AACQ of a particular coal company with a variation of $\pm 5\%$. However, in addition, non-supplied quantity during previous month (s) should be allowed to be added in the program.
- iii. Coal company after due diligence and considering infrastructure constraints should approve Coal program matrix. The approved/ sanctioned program may be less than the submitted coal program due to infrastructure constraint. The reasons for approving less coal program need to be communicated in writing to power utility by Coal Company, with a copy to CEA.

Coal company based on approved Coal program matrix should submit the Rakes program matrix to Railways. Railways after due diligence and considering infrastructure constraints should approve Rake program matrix. The approved/ sanctioned Rakes may be less than the submitted Rakes program due to infrastructure constraint. The reasons for approving less Rakes program need to be communicated in writing to power utility by Railways, with a copy to CEA.”]

- iv. Coal company/Railways would supply coal as per the approved program.
- v. Combined Materialization on to be calculated based on the following:

Materialisation (%) = (100 * Despatched linkage Quantity/Approved final Program by Coal company or Railways for respective GENCOs)

Note: In case transportation of coal does not involve Railways and coal is being transported by other modes viz. Road, MGR etc., program approved by coal company will be taken as final approved program for the purpose of calculation of materialisation.

- vi. Coal companies will calculate materialization only from supply of linkage coal (FSA) and **will not include** coal supplied through other sources viz. e-auction, MoU.
 - vii. Total coal stock at the plant will be sum of total linkage coal, imported coal, e-auction coal, MOU route etc. However, the number of days of stock of coal will be calculated based on the blending ratio of domestic versus imported coal stock at the power plant.
- d. IPPs will continue to submit plant specific program based on MCQ/ACQ under FSA and Materialisation will be calculated as:

Materialization (%) = (100 * Despatched FSA Quantity/ Approved final Program by Coal company or Railways)

Any transfer of coal from one station to other station under interplant transfer facility, the amount of coal transferred will be considered against the plant whose coal has been transferred, while calculating materialization.

12. Exceptions for not showing plants as critical/Supercritical

a. Use of Materialization figures for showing critical/supercritical coal stock

i. For State and Central Gencos

- A. If the total CIL or SCCL supply is less than the combined trigger level, all plants under the said utility having critical coal stock will be shown as critical excluding plants having bridge linkage. However, if any one coal company (CIL or SCCL) has supplied more than trigger level and other less than trigger level, the reason for criticality will be shown against the coal company whose supply is less than trigger level.
- B. If the total CIL or SCCL supply is more than the combined trigger level and the coal company has expressed their inability to supply more coal, but offered coal from other sources on “*as is where is*” basis then no plant under the said utility having critical coal stock will be shown as critical. The total coal supply (including all modes) shall be upto ACQ/program level.

ii. For IPPs

- A. If the materialization is more than the trigger level and the coal company has expressed their inability to supply more coal than trigger level, but offered coal from other sources on as in where basis then the plant will not be shown as having critical/supercritical coal stock even if number of days of coal stock is less than the criteria given in para 4 above.

- B. If a plant is diverting coal from one plant to its any other plant under Inter plant transfer as provided in FSA and as a result the plant from which coal is diverted comes under critical/supercritical coal stock norm, the plant will not be shown critical/supercritical, for twice the number of months from the date of diversion.
- iii. If the utility/IPP gives monthly programme for quantity less than the monthly trigger quantity, coal company has to supply quantity equal to approved final program quantity (100% materialisation) else utility/IPP will be shown as critical.
- b. **Non Payment of dues**
- If the plant has not paid their current (undisputed) bills as per FSA, then the plant will not be shown as critical/super-critical for a period of one more month of delayed payment. For example, if the station has not paid for the month of April on 1st of April as provided in FSA and paid on 1st of May, then the plant will not be shown as critical/super-critical during the month of April and May.
- c. **Unloading constraint at plant end**
- i. If the plant is having any unloading constraints like failure of MGR, trolley, failure of wagon tippler, more unloading time etc. attributable to the infrastructure of the plant, the plant will not be shown as critical/super-critical for double the period of unloading constraint. For example, if there was unloading constraint from 1st January to 15th January, the plant will not be shown critical/super-critical for the period from 1st January to 30th January.
- ii. Railways to confirm any unloading constraints to coal companies.
- d. **Plants having Bridge linkage:** The plant having only Bridge linkage will not be shown as critical/super-critical as in the Bridge linkage policy, there is no minimum assured quantity and coal would be supplied on "*best effort basis*".
- e. **Coal offered by other modes:** If the coal company is not able to supply coal from normal mode due to any reason, and offers to give coal from any other mode, with the consent of the buyer, but buyer is not lifting coal, the plant will not be shown as critical/super-critical.
- f. **Constraint in supply of rakes by the Railways**
- If there is any constraint in supply of coal due to less supply of rakes/track congestion, the plant will be shown critical and indicated accordingly in the remarks column.
- g. **Plant having linkage for few units than total installed capacity**
- If a plant is having fuel linkage for less capacity, it will be shown as having critical/super-critical coal stock only if materialization is less than the trigger level based on the linkage quantity.
- h. **Newly added plants in daily coal report**
- If a new plant is added in daily coal report, the same will not be shown as critical/super-critical for a period of one month from the date of inclusion.