

### भारत सरकार कोयला मंत्रालय कोयला नियंत्रक का कार्यालय



CC/Tech/Annual Grade/ General/2018-19
Government of India
Ministry of Coal
Office of the Coal Controller
1, Council House Street, Kolkata - 700 001

टेलीफोन /Ph: 033 22489612-16; Fax: 22482459;

1, काउंसिल हाउस स्ट्रीट, कोलकाता - 1

ई–मेल/ E-mail: coalcont-wb@nic.in Dated, the 20<sup>th</sup> November, 2017.

सेवा में, नामित मालिक, All Coal & Lignite mines.

Sub: Annual Declaration of Grades / GCV bands for coal/lignite seams/sidings for the FY 2018-19 Ref: Rule 4(1) of the CCR, 2004 and Rule 18(B) of the CM (C&D) Amendment Rules, 2011.

Sir,

I am directed by the competent authority that the Annual Declaration of Grades / GCV bands for coal/lignite seams/sidings for the FY 2018-19 to be proposed and submitted by the Nominated Owner of the coal/lignite companies to the Office of the Coal Controller latest by 15<sup>th</sup> December, 2017, as per the modified Laid down procedure for 2018-19.

It is proposed to submit the above grade proposals through online mode (link will be provided in the website 'www.coalcontroller.gov.in' shortly; at present the link is under testing).

Encl: Laid down procedure for 2018-19 in pdf.

भवदीय,

(अनुपम लाहिड़ी)

(Anupam Lahiri) निदेशक, सी सी ओ,

कोलकाता

Cc to

All Officers, HQ / Regional Heads, CCO / ASN, DHN, RNC, SBP, BLP, NGP, KGM, NEC. All GM (QM/QC) / CIL, ECL, BCCL, CCL, NCL, MCL, SECL, WCL, NEC, SCCL

# GOVERNMENT OF INDIA OFFICE OFTHE COAL CONTROLLER, MINISTRY OF COAL 1, COUNCIL HOUSE STREET, KOLKATA – 700 001

## LAID DOWN PROCEDURE AND METHODOF SAMPLING & ANALYSIS OF COAL FOR THE PURPOSE OFDECLARATION AND MAINTENANCE OF GRADES OF COAL MINED IN A COLLIERY

In exercise of the powers conferred under sub-rule 1 of rule 4 of the Colliery Control Rules, 2004 and sub-rule 1 of rule 18 B of Coal Mines (Conservation and Development ) Amendment Rules, 2011 continued in force under Sub-sections (1) & (2) of Section 18 of the Mines & Minerals (Development and Regulation) Act 1957 (67 of 1957) and vide MOC's Gazette (Extraordinary) Notification S.O.2920(E) Dated 30.12.2011, the procedure and method of sampling/analysis of coal is reproduced below after incorporating certain modifications. Therevised procedure is to be adopted by the producing coal companies for declaration and maintenance of grade/quality of coal to be mined & dispatched during 2018-19 and shall come into forcewith immediate effect.

<u>SAMPLE PREPARATION</u>: - As per sub-rule 3 of rule 4 of the Colliery Control Rules, 2004 and sub-rule 3 of rule 18 B of the Coal Mines (Conservation and Development) Amendment Rules, 2011 the Nominated Owner shall provide all reasonable facilities and assistance for drawing coal samples by CCO officials& Government Organizations/Academic Institutions if authorized by CCOfor this purpose. For this, one sample preparation room must be madeavailable at every pit head dispatch point of the concerned colliery which should be properly illuminated, properly ventilated (exhaust fan), duly equipped with mechanical crushers, strainers, pulverizers (with vacuum cleaners) and a big clean metal plate for coning/quartering etc. Suitable manpoweris also to be provided by concerned coal companyat the sampling room. Mechanical sampling/auto samplers are preferable to manual sampling. For preparation of sample, items 5, 6 & 7 of Annexure – IV shall be followed.

### PROVISIONAL GRADING/QUALITY OF COAL SEAMS/SIDING

- 1. Before commencement of dispatch of coal, the grade/quality of coal of the seam should be declared provisionally on the basis of the analysis results of the seam samples drawn by the Nominated Owner, Agent or Manager of the mine and stock samples generated from the said seam, if any. For new siding, similar procedure shall be followed taking despatch samples.
- 2. For provisional grading/quality, at least two seam samples excluding pickable bands of 10 cmthickness and above are to be drawn from at least two different sites which shall be as far apart as practicable but in any case not less than 30 meters. If the method of mining is such that the pieces of bands after blasting or cutting cannot be separated/picked, then the same should be included in the sample, keeping in view the cost incurred on beneficiation. In such cases, the Nominated Owner/Agent must submit a certificate as per Annexure-VI. The said samples to be drawn by the Nominated Owner, Agent or Manager of the mine are to be analyzed as per the relevant BIS specifications. The analysis may be carried out at any Govt. /NABL Accredited laboratory preferably CIMFR/NML, Jamshedpur /IICT, Hyderabad / IMMT, Bhubaneswar / NEIST,

Jorhat(CSIR Lab) and the prescribed grade certificate on the company's letterhead, in the extant prescribed format (ANNEXURE – I), should be forwarded to the Coal Controller.

- 3. In case of declaring the provisional grade/quality of a seam/siding, which had enjoyed a grade/quality in the past but subsequently withdrawn, the previous grade or its equivalent may be declared as provisional grade/quality.
- 4. While declaring a provisional grade/quality, the Nominated Owner should furnish the following information to the Coal Controller:
  - i) Number of samples tested and the dates of drawal of samples.
  - ii) Place/places from where samples are drawn (enclose a mine plan of scale 1:2000 showing the Area proposed to be worked during the financial yearand the places of sampling).
  - iii) Seam Section(s) up to the full thickness and the working thickness. Nature and thickness of bands in the seam must be clearly mentioned therein showing whether the band is included or excluded.
  - iv) Particulars of Govt./NABL Accredited laboratory/laboratories where samples are analyzed.
  - v) Copies of test results issued by the Govt./NABLAccredited laboratory, preferably CIMFR / NML, Jamshedpur / IICT, Hyderabad / IMMT, Bhubaneswar / NEIST, Jorhat(CSIR Lab), duly countersigned by the CollieryManager and Head of Quality Management of the Company.
- 5. In case of a virgin seam in a working coalfield, determination of class i.e. whether the coal is coking or non-coking may be assessed provisionally on the basis of analysis results of seam samples (proximate analysis on equilibrated basis), GCV(byapproved bomb calorimeter on dmf basis as per IS: 1350 (Part II) 1970 dated April 1971or any subsequent revision thereof), Mean Random Reflectance per cent (Ro), Moisture % (60% R.H.) parts/100 parts of unit coal, V.M.% on dmf basis, LTGK, CSN, Ash% and Carbon %(dmf) and Hydrogen % (dmf) from ultimate analysis of coal etc.,in any Govt./NABLAccredited Laboratory, preferably CIMFR / NML, Jamshedpur / IICT, Hyderabad / IMMT, Bhubaneswar / NEIST, Jorhat(CSIR Lab).The Nominated owner shall apply to the Coal Controller for provisional classification of the seam giving particulars of the class and grade/quality of the seam in the extant prescribed format (Annexure-II).
- 6. In case of a virgin seam in a new area having no mine in the vicinity, the expected class of coal as per analytical data of bore hole or other such samples provisionally mentioned or mentioned in the Project Report (PR) may be taken as theexpected/indicative class for the purpose of declaring the grade/quality. In this case also the owner shall apply to the Coal Controller with detailed justification for provisional classification of the seam in the extant prescribed format (Annexure-II)along-with the said data of analysis results as mentioned in Item No. 5 above.
- 7. Similarly, provisional composite grade/quality of coal dispatched through sidings shall be declared, in the event coal of multiple grades is dispatched through those siding(s) as one single composite grade mentioning the proportion of mixing different grade of coal.

In the event coal in multiple grades is dispatched through the siding(s) in the respective multiple grades, no specific declaration is needed and the corresponding grades of each feeding colliery are needed to be stated against that particular siding.

8. The application for confirmation of the final class whether the coal is coking or non-coking in case of a virgin seam should be submitted to the Coal Controller as early as possible but in any case not later than 60 (sixty) days from the date of declaration of provisional grade/quality.

### ANNUAL GRADING (QUALITY) / CLASSIFICATION OF COAL SEAM/SIDING

- 9. All the grade proposals must reach the office of the Coal Controller and Regional OSD, CCO office positively before 15<sup>th</sup> of December of every year failing which the same shall not be considered for annual grading by CCO.
- 10. Random sampling and/or analysis for finalization of the proposed grades of all the seams of the mines and all attached siding(s) of mine(s)shall be done by CCO. For this purpose,seam /dispatch samples shall be collected and analyzed at any Govt. accredited laboratory / Govt. Academic Institution / NABL Lab. The job shall commence from the 1<sup>st</sup> week of Januaryevery year.
- 11. The seam shall ordinarily be graded only in respect of the working thickness in case of underground development working. For annual grade declaration for the seams of underground mines where more than one coal seam are being worked but coal come out in a mixed way through the main belt, there shall be a provision of collecting samples from the respective belts of different seams for their individual grade declaration.
- 12. In case of depillaring and opencast mining, the total working thickness of the seam or seams involved should be considered for grading purpose.
- 13. The grade/quality declaration shall generally be in respect of a seam or a section of a seam and not in respect of any pit, incline or quarry.
- 14. The annual grade/quality of coal shall be finalized by CCO on the basis of samples to be drawn randomly from wagons/trucks/conveyor belts/rope ways on at least 3 different dates spaced at a minimum interval of 7 days and by taking the average of the samples. The expenditure of such sampling / sampling& analysis shall be borne by the Coal Company and payment shall be made in advance to the Government Organization/Academic Institution / NABL Lab concerned. All the reasonable facilities shall be provided by the Coal Company as requisitioned by the Head of the Regional CCO offices.
- 15. On the basis of average of the analysis results of all these three samples, the approval for the Annual Grade Declaration shall be communicated by the Coal Controller every year. Subsequently, the grades/quality so approved by the Coal Controller shall be notified by the Nominated Owner in the prescribed Grade Certificate in the extant prescribed format (Annexure-I) and copy of such Grade Certificate(s) issued under the signature of the Nominated Owner shall be forwarded to Coal Controller.

### REVISION OF THEANNUAL GRADE/QUALITY OF COAL SEAMS/SIDING (IF ANY)

- 16. If the Nominated Owner intends to revise the existing (Annual) grade/quality of a seam or section of a seam, he shall, not less than 60 (sixty) days before such revision, give notice of his intention to the Coal Controller in writing indicating the results of both seam and loading samples drawn by the Nominated Owner, Agent or Manager of the mine in the prescribed format (Annexure- II) on at least 6(six) different datesspaced at an interval of at least 7 (seven) days in the preceding 2(two) months to justify the proposed revision. The samples drawn from at least 3 different locations of the concerned seam/ siding shall be analyzed in any Govt./NABL Accredited Laboratory (except company lab) preferably CIMFR / NML, Jamshedpur / IICT, Hyderabad / IMMT, Bhubaneswar / NEIST, Jorhat(CSIR Lab)and the sampling sites shall be clearly shown in the attached working plan. If the colliery has entered into Third Party/Joint sampling agreement with a consumer(s)the analysis results of suchthird party/joint samples may be the basis for revision of grade/quality if agreed by the major consumer. The results of such third party/joint samples countersigned by the major consumer shall be submitted along with the notice of intention for revision of grade/quality.
- 17. For annual grade declaration for the seams of underground mines where more than one coal seam are being worked but coal come out in a mixed way through the main belt, there shall be a provision of collecting samples from the respective belts of different seams for their individual grade declaration. On receipt of the notice of intention from the Nominated Owner as stated in Item (16) above, the CCO officials may collect the dispatch samples and get them analyzed at any Govt. /NABL Accredited laboratory preferably CIMFR / NML, Jamshedpur / IICT, Hyderabad / IMMT, Bhubaneswar / NEIST, Jorhat(CSIR Lab), the cost of which shall be borne by the Coal Company concerned and accordingly thegrade(s) may be revised based on the recommendation of Regional head of CCO and due approval of the Coal Controller.
- 18. Proposal for revision of grade (if any) intended by the Nominated Owner shall not be entertained by CCO if received after expiry of six months from the declaration of annual grade.

### REVISION OF CLASSIFICATION OF COAL SEAMS

19. In case of intention of change of classification of coal from coking to non-coking & vice versa, the Nominated owner shall apply to the coal Controller positively by 15<sup>th</sup>December. At the time of submission of Annual Grade proposalsof seams/sections of the mine(s)giving detailed justification for change along with current relevant detailed analysis results in the extant prescribed Format (Annexure- II) with comments/observations of CIMFR / NML, Jamshedpur / IICT, Hyderabad / IMMT, Bhubaneswar / NEIST, Jorhat(CSIR Lab), regarding change of characteristics of six (6) seam samples drawn during the last six months of the previous financial year,drawn by the Nominated Owner, Agent or Manager of the mine, as per laid down procedure fromat-least 3 (three) different locations of the concerned seam to be shown in the attached working plan (1:2000). The proposed change of class of coal would be verified by officials of CCO through systematic sampling of seam as well as loading samples drawn on at least 3(three) different dates spaced at an interval of at least 7 (seven) days in a span of 1 (one) month to justify the proposed revision, as per laid down procedure and the detailed analysis like Moisture % (60% R.H.) parts/100 parts unit coal,V.M. (per cent on dmf basis), GCV (in Bomb calorimeter on dmf basis), Mean Random

Reflectance per cent (Ro), LTGK type, C.S.N, Ash %,Carbon % (dmf) and Hydrogen% (dmf) etc. should be done at any CIMFR / NML, Jamshedpur / IICT, Hyderabad / IMMT, Bhubaneswar / NEIST, Jorhat(CSIR Lab) with their comments/recommendation for such change of geological coking/non-coking characteristics of coal. On the basis of the analysis results, Coal Controller shall take the decision and the decision of acceptance shall be intimated to the Nominated Owner of the concerned coal company, if found in order as per Table 2 of Indian Standard classification and codification of Indian coals and Lignites (IS 770: 1977, second revision and further revision thereof). Interim re-classification proposal by the Nominated Owner for revision from coking/non-coking characteristics or vice-versa within a financial year will not be accepted at the office of the Coal Controller.

### REOPENING OF WORKING

20. In case, where a seam is re-opened within 6(six) months of temporary discontinuance, the previous grade prevailing at the time of discontinuance may be restored but when the period of discontinuance exceeds 6(six) months, the nominated owner shall apply afresh for grade verification by CCO.

### COMPOSITE GRADE/OUALITY OF COAL IN DESPATCH POINTS

- 21. The Nominated Owner may declare the composite grade/qualityonthe basis of weighted average, for a number of seams if the productions from those seams is despatched as mixed loading. In case of composite grade/quality, the grade/quality certificate should indicate the ratio of quantities of different grades/quality of coal in the mixed loading with a certificate foron maintenance of such mixed proportion to maintain the proposed grades of coal feeder streams.
- 22. Where two or more grades/quality of coal is stacked and loaded from the same depot or siding, a proper fool-proof separation/stacking arrangement should be provided so as to eliminate the chance of any intentional or inadvertent admixture of different grades of coal.

### DISPLAY OF GRADES/QUALITYOF COAL SEAMS/SIDING

- 23. (a) The Nominated Owner shall permanently display the declared grade/quality list on a notice-board at the office of the Manager showing the grades of all the seams and sections of seams mined in the colliery. Further, complete grade/quality list of all the seams and sections of seams of all collieries belonging to the coal company should be maintained, so as to be accessible by all concerned, at the offices of the Nominated owner, Chairman/Managing Director, Area General Manager and all Area Sales Officers.
  - (b) In siding also same arrangement for such display should exist.
  - (c) If two or more grades of coal are loaded from one siding, appropriate board(s) shall be erected at prominent places in the siding(s) displaying the source of coal i.e. mine, seam and grade of coal.
- 24. The Nominated Owner shall maintain a register showing the following particulars of all seams being worked in the mine:
  - (a) Analytical results of each sample
  - (b) Declared grade/qualityapproved by Coal Controller

- (c) Date of declaration.
- (d) Serial number of grade /Quality certificates.
- (e) Section of the seam graded showing details of bands.
- (f) Particulars of each band such as their thickness, nature i.e. hard or friable, whether pickable or not and whether included or excluded in the seam sample.

#### SETTLEMENT OF DISPUTES

- 25. While referring to any disputearising out of the correctness of the declaration of grade of coalto the Coal Controllerby a coal consumerfor a decision, under sub-rule 5 of rule 4 of the Colliery Control Rules, 2004 and sub-rule 5 of rule 18 B of Coal Mines (Conservation and Development) Amendment Rules, 2011,the same should be preferred in the extent prescribed format (Annexure III), a and full analytical data of coal and such other informationwhich is considered relevant by the Coal Controllershould be furnished.
- 26. Disputes arising only in respect of the correctness of declaration of grade/qualityof coal of seam or section of a seam shall be admitted by the Coal Controller. No dispute in respect of **commercial aspects** in respect of a particular consignment shall be entertained.
- 27. The decision of the Coal Controller in the matter of disputes about grades/quality under sub-rule 5 of rule 4 of the Colliery Control Rules, 2004 and sub-rule 5 of rule 18 B of Coal Mines (Conservation and Development ) Amendment Rules, 2011 is final and binding on the Coal Company and Consumer.
- 28. On receipt of the complaint from the consumer, the CCO officials may take surprise samples in the presence of authorized representatives of Coal consumers and the coal companyfrom the loading point(s), get them analyzed in a NABLAccredited/CSIR lab. Cost of such analysis of the samples shall be borne by the complainant. Based on the results or otherwise, Coal Controller shall take a decision.

# PROCEDURE FOR SAMPLING AND ANALYSIS FOR DECLARATION/ MAINTENANCE OF GRADE/QUALITY OF COAL SEAM/SIDING TO BE FOLLOWED BY THE COAL COMPANIES, CCO REPRESENTATIVES AND AUTHORIZED GOVERNMENT ORGANIZATIONS/ACADEMIC INSTITUTIONS

(Ref. sub-rule 1 of rule 4 of the Colliery Control Rules, 2004 and sub-rule 1 of rule 18 B of Coal Mines (Conservation and Development) Amendment Rules, 2011).

- 29. For drawing seam samples the owner of a colliery shall prepare sampling sites and collect seam samples in accordance with provisions in item 9.1 of BIS specification NO.IS: 436 Part.I/ sec I)

   1964 Methods For sampling of COAL AND COKE -Part. I SAMPLING OF COAL Section 1

  Manual Sampling (Revised)
- 30. For the purpose of drawing wagon samples, the procedure as laid down by the Coal Controller and as enclosed as Annexure IV shall be followed.
- 31. Where samples of coal are required to be drawn from belt conveyer or other means of transport, provisions in the relevant BIS specification may be followed with modifications prescribed by Coal Controller as detailed in Annexure IV.
- 32. For the purpose of analysis of sample(s), the following BIS standards shall be followed:
  - (a) METHODS OF TEST FOR COAL AND COKE:PART I PROXIMATE ANALYSIS IS: 1350 (PART-I) (2<sup>nd</sup> Revision) 1984.
  - (b) METHOD OF TEST OF COAL & COKE: ULTIMATE ANALYSIS IS: 1350 (PART- IV) 1974
    - (i) IS:1350 (PART II) 1970 (2<sup>ND</sup>REVISION WITH AMMENDMENT) : DETERMINATION OF CALORIFIC VALUE.
    - (ii) IS:1350 (PART-III)–1969 : DETERMINATION OF SULPHUR.
    - (iii) IS:1350 (PART IV/sec.I) –1974 :ULTIMATE ANALYSIS: DETERMINATION OF CARBON & HYDROGEN.
    - (iv) IS: 1350 (PART IV/sec.2) 1975:ULTIMATE ANALYSIS: DETERMINATION OF NITROGEN.
    - (v) IS :1353-1993: METHODS OF TEST FOR CARBONISATION CAKING INDEX, SWELLING NO., AND GRAY KING ASSAY(L.T.)
    - (vi) METHODS OF PETROGRAPHIC ANALYSIS OF COAL:IS 9127 (Part I, II &III) 1992
  - (c) INDIAN STANDARD CLASSIFICATION AND CODIFICATION OF INDIAN COAL AND LIGNITES (IS 770: 1977, SECOND REVISION AND FURTHER REVISION THEREOF).

### On the Company's Letter Head

### <u>ANNEXURE - I</u>

### **GRADE/QUALITY CERTIFICATE**

(Name of Coal Company)			
(Name of seam of Colliery/Siding /CHP etc,)			
Serial No. of Grade/QualityCertificatedated			
In pursuance of provisions of sub-rule (2) of rule 4 of Colliery Control Rules, 2004and also sub-			
rule 2 of rule 18 B of Coal Mines (Conservation and Development ) Amendment Rules, 2011,			
being the competent authority of the company, hereby declare the Grade/Quality of coal			
Seam/Siding(No./Name)			
Sectionin(colliery) as			
(Grade/Quality with GCV analyzed in a Bomb calorimeter in case of non-coking coal) to be effective from(date) in			
supersession of allprevious declarations, if any.			

The Coal Controller Office of the Coal Controller Ministry of Coal, Govt. of India 1, Council House Street Kolkata-700 001

Name & Designation with seal

(Signature of the Nominated Owner)

### ANNEXURE - II

## DATA REQUIRED FOR GRADE/QUALITY PROPOSALS FOR ANNUAL/INTERMILY REVISED GRADATION/QUALITY OF COAL /LIGNITE SEAMS OF MINES/SIDING/CHP ETC.

- 01. Name of Colliery/Siding/CHP:
- 02.Name of Seam:
- 03. Thickness of Seam:
- 04. Height of Working Section:
- 05. Vertical Section of Seam Showing
- all bands indicating Nature and

Thickness (working Section should

be indicated by Arrow). This

Section should be given for each

mine in a Standard Paper of 29 cm. x

23 cm Size:

06. Analysis of seam samples (Equilibrated basis)

Ash% Moist% VM% GCV by Bomb Calorimeter in

K.Cal/kg(on air dry basis, ie., samples

equilibrated at 40 degrees C and 60% Relative Humidity)

(a) Including all bands

Site No. 1

Site No. 2

(b) Excluding pickable bands (of 10cm& above)

Site No. 1

Site No. 2

07. Additional Analysis results for Coking properties (from Govt/NABL-accredited Lab preferably CIMFR / NML, Jamshedpur / IICT, Hyderabad / IMMT, Bhubaneswar / NEIST, Jorhat (CSIR Lab)

Sample	Mean	LTGK	CSN	GCV(done by	Volatile	Carbon	Hydrogen	Moisture %
Details	Random			Bomb	Matter	%(dmf)	%(dmf)	(60% R.H.)
	Reflectan			calorimeter)in	% on			parts/100
	ce per			Kcal/Kg on	dmf			parts unit
	cent(Ro)			dmf basis	basis			coal

08. Analysis results of Wagon Sample/Truck Sample/Belt conveyor Sample/Ropeway Sample/Third party/Joint sample (on Equilibrated conditions' basis):

Date	Consignee/ Destination	Ash%	Moist %	VM %	GCV K.Cal/Kg	Grade/Quality

09.Analys	sis Results	of Joint	Samples:

Consignee	Sample number and date	Ash%	Moist%	VM% on dmf basis	GCV K.Cal/Kg	Grade/Quality

10.Composite grade of CHP/Sdg with mention of proportions of seams and grade-wise despatches in tonnes certifying the maintenance of proportion of mixing of coal from feeder streams of collieries and distances from colliery end to the dispatch points by the Nominated Owner, Agent or Manager of the Coal Company

	Mine	Seam	Grade/Qualityproposed for each such qty loaded through CHP/Sdg.
Ī			

- 11. Whether Steam, Slack are suitably graded (the arrangement for segregation should be mentioned along with likely % of steam and slack in each Grade/Quality included &be declared).
- 12.In ROM coal, where averages are @ 60% steam, 40% slack, specify the arrangement for limiting the top size of coal to 200-250 mm.
- 13.Distance between Railway Siding to Pit-Head where surface transportation charges are levied and the name of the Siding from where the coal will be dispatched by rail/trucks.
- 14.Gradeproposed for the year:

STM	SLK	ROM
(GRADE/QUALITY)	(GRADE/QUALTY)	(GRADE/QUALITY)
	(Signature of the Nor	minated Owner with office seal)

### **ANNEXURE -III**

### GOVERNMENT OF INDIA MINISTRY OF COAL OFFICE OF THE COAL CONTROLLER 1, COUNCIL HOUSE STREET, KOLKATA –1

### PROCEDURE FOR LODGING STATUTORY COMPLAINTS IN RESPECT OF GRADES/QUALITY OF COAL

In terms of sub-rule 5 of rule 4 of the Colliery Control Rules, 2004and sub-rule 5 of rule 18 B of Coal Mines (Conservation and Development) Amendment Rules, 2011, disputes arising out of declaration of grade of coal by the Coal Companies may be referred to the Coal Controller, Government of India, Ministry of Coal,1, Council House Street, Kolkata – 700 001 for final decision.

Any consumer who wishes to prefer a complaint to the Coal Controller regarding the grade of coal received by him may do so in the proforma appended below. A separate complaint should be made in respect of each grade of coal of each colliery which should be accompanied by a fee of Rs.2500/- in the form of an A/C Payee Bank Draft on any Nationalized Bank in Kolkata drawn in favour of Coal Controller, Kolkata, for each grade of each colliery against which complaint is being raised.

Disputes only in respect of declaration of grade shall be admitted and any dispute in respect of any financial transaction shall not be entertained.

#### PROFORMA

- 1. Name and address of the consumer.
- 2. Name of supplying Colliery and Seam from which Supplied.
- 3. Approved Grade of Coal
- 4. Quality/Grade of Coal actually received by the consumer ascertained by actual analysis on loading point/dispatch point only (Proximate analysis, ash%, moisture%, volatile matter% on equilibrated basis and GCV in Kcal/Kg analyzed in bomb calorimeter on equilibrated basis ie., samples equilibrated at 40 degrees C and 60% Relative Humidity for non coking coals) from any Govt/NABL- Accredited. Laboratory preferably CIMFR / NML, Jamshedpur / IICT, Hyderabad / IMMT, Bhubaneswar / NEIST, Jorhat, a CSIR lab)
- 5. Detailed analysis report if available. If not, what is the basis of the complaint?
- 6.Particulars of Wagons/Trucks and dates of loading.
- 7. Particulars of accompanying Bank Draft.
- 8. Any other relevant information. Like a copy of FSA or CSA executed by the consumer with the Coal Company should be enclosed to the application.

Date:	(Signature of the authorized Signatory/ Nominated owner
	for Consumer lodging the complaint with Official Seal)
Place:	

### ANNEXURE - IV

PROCEDURE FOR COLLECTION OF SAMPLES FROM LOADED WAGONS/LOADED TRUCKS/ CONVEYOR BELTS (FOR DETERMINATION OF GRADE/QUALITY) TO BE FOLLOWED BY THE COAL COMPANIES & GOVERNMENT ORGANIZATIONS / ACADEMIC INSTITUTIONS

[ Ref: Sub-rule 1 of rule 4 of the Colliery Control Rules, 2004 and sub-rule 1 of rule 18 B of Coal Mines (Conservation and Development ) Amendment Rules, 2011]

1. For each siding / colliery adequate number of representatives should be authorised by the colliery management for the purpose of supervising the sampling operation. Attested signature of such authorized persons should be kept with the Regional head of Coal Controller's Organization (O.S.D.).

### 2. <u>In case of sampling from static loaded wagons the following procedure shall be</u> followed:

- 2.1 Whole Rake (fully or partially loaded) will be considered as one lot for the purpose of sampling. When a rake is loaded with more than one grade/source of coal, wagons loaded with one grade of a particular source shall constitute one lot.
- 2.2 10%(Ten per cent) of wagons of each lot will be selected from the population of the loaded wagons for actual collection of samples as per random number table (Ref: IS 436 Part I, Sec I of 1964 of Bureau of Indian Standards).
- 2.3 One point on the surface of the loaded wagons will be decided for collection of sample before getting on to the top of the wagon. From the prefixed point the entire quantity of coal will be collected from a pit of about 30 cm diameter and dug up to a depth as far as practicable.
- 2.4 The top of the selected spot for collection of sample shall be leveled before digging a pit of about 30 cm diameter to a depth as far as practicable taking precaution to prevent coal getting mixed with the sample due to side spillage. However, the minimum quantity thus collected from each pit shall not be less than 30 Kg.
- 2.5 In case of any big piece of coal/stone encountered during the process of digging in the above manner, all the material at the top of the big piece shall be taken in sample.
- 2.6 After collection from one wagon, the gunny bag containing the sample shall be carried to the site of next selected wagon and the same process is continued up to the last wagon selected for collection of sample. Alternatively, the gunny bags containing sample may be kept at a central place under reliable guard or placed in the locked sampling room wherever available. The gunny bag will be loosely tied.

### 3. In case of sampling from loaded trucks, following procedure shall be followed:

- 3.1 Trucks shall be chosen at random which shall be the first truck for sampling & after that  $2^{nd}$  and  $3^{rd}$  truck may also be randomly selected.
- 3.2 The procedure prescribed from 2.3 to 2.6 above shall be adopted for collection of samples from the selected loaded trucks.

### 4. In case of sampling from conveyor belts, following procedure shall be followed:

4.1 For the purpose of sampling, a lot, while it is being discharged over a conveyor, shall be divided into a number of sub-lots of approximately equal weight. 2 gross samples shall be collected from a quantity upto 500 tonnes, 3 gross samples for a quantity ranging from 501 tonnes to 1000 tonnes, 4 gross samples for a quantity ranging from 1001 tonnes to 2000

tonnes, 5 gross samples for a quantity ranging from 2001 to 3000 tonnes and 6 gross samples for a quantity of over 3000 tonnes.

- 4.2 Weight of one gross sample shall be 350 kg in case of ROM/Cr. ROM coal, 175 kg in case of Steam coal and 75 kg in case of Slack coal.
- 4.3 Weight of one increment shall be 5 kg for all coal sizes.
- 4.4 In case of ROM/Cr. ROM coal, for 1 gross sample, the number of increments shall be 70 (@ 5 kg per increment, equivalent to 350 kg), in case of Steam coal, for 1 gross sample, the number of increments shall be 35 (@ 5 kg per increment, equivalent to 175 kg) and in case of Slack coal, for 1 gross sample, the number of increments shall be 15 (@ 5 kg per increment, equivalent to 75 kg).
- 4.5 The increments shall preferably be taken from the full cross-section and thickness of the stream in one operation. While drawing the increments, the scoop should sweep the bottom of the conveyor.
- 4.6 Samples may be collected either from the moving belt or after stopping the belt periodically.
- 4.7 Before collecting the increments, the speed of the conveyor and the quantity of material passing a certain point in a given time shall be ascertained so that an appropriate spacing of the increments may be arranged over the whole of the lot.

#### 5. PREPARATION OF SAMPLE

- 5.1 The total material thus collected from identified wagons without exclusion of anything other than foreign materials viz. metallic pieces, wood, bricks, concrete chips etc., shall constitute the gross sample for the lot.
- 5.2 The gross sample shall be crushed to 50 mm preferably by mechanical means, mixed thoroughly, coned and quartered. Two opposite quarters shall be retained and rest rejected. The retained material shall be further mixed together and same procedure of coning and quartering and rejection shall be followed till one quarter of the gross sample is retained. The material so obtained shall be crushed to 12.5 mm preferably by mechanical means and finally crushed to 3 mm size, preferably by mechanical means following coning and quartering till approx. 2(two) kg of sample is obtained. 2(two) kg sample is to be reduced to 72 mesh in a pulveriser and shall be kept for analysis.
- 5.3 This pulverized sample of approximately 1.5 kg shall be divided into 3 equal parts in segments of 120 degree each and by taking each segment, three equal parts of 500 gm(approx.) of the sample be collected in suitable polythene bags. One part shall be handed over to the colliery. The second part shall be sealed with a slip inside the bag as well as tagged outside with information viz. (i) date of sampling,(ii)name of colliery,(iii)place of sampling,(iv)size of coal and shall be kept as a referee sample under the custody of Coal Controller's Organisation. The third part shall be sealed and tagged outside of the bag with the above information. This part of the sample shall be sent for analysis by **Regional Head of CCO**to any Govt/.NABL Accredited Laboratory preferably CIMFR / NML, Jamshedpur / IICT, Hyderabad / IMMT, Bhubaneswar / NEIST, Jorhat(CSIR Lab).

### 6. CONING AND QUARTERING

For reduction of sample – the following procedure shall be followed.

- 6.1 Heap the material into the shape of a cone by pouring one scoopful of the material one after another on the apex of the cone by allowing the material to fall down only under the influence of gravity.
- 6.2 Flatten the cone evenly so that it forms a low circular pile.
- 6.3 Cut the pile into 4 quarters along two diameters which intersect at right angles. Retain one pair of opposite quarters and reject the other pair. Repeat till the size of the retained sample is reduced to the required weight.

### 7. GENERAL PRECAUTIONS

The place selected for preparation of sample shall be enclosed, properly roofed, well lighted and free from draught. Where this is not possible, precaution shall be taken against loss of (a)fine wind-borne sample (b)contamination with moisture (c) contamination with foreign matter .

- 7.1 No part of the sample shall be removed during the process of preparation & reduction.
- 7.2 Hard clean surface, free from cracks shall be selected for mixing, coning and quartering of the sample.
- 7.3 The sampling bags for samples collected by **Regional Head of CCO** or his representative should be identical and shall be similarly sealed and carefully deposited.
- 7.4 Before accepting the coal samples from their authorised representative, **Regional Head of CCO** or his authorised representative of CCO should examine the sample bags and sampling report.
- 8. Sampling report as prescribed in the Annexure V shall be prepared in triplicate with the signature of the representatives of colliery as well as that of Coal Controller.

### 9. HANDLING THE SAMPLES AND ANALYSIS REPORT

The **Regional Head of CCO**should send his part of sample to laboratory after codification by removing the slip inside/outside in a group of at least 6 samples. The code number will be given by **Regional Head of CCO**and confidentially recorded in a bound paged register. All the samples sent in one lot will be in exactly similar bags and after sealing again. The code number would be given both on the tag and inside the bag.

9.1 When the analytical results are obtained from the Govt. /NABLAccredited. Laboratory, preferably CIMFR / NML, Jamshedpur / IICT, Hyderabad / IMMT, Bhubaneswar / NEIST, Jorhat(CSIR Lab), same should be decoded and recorded in the register. The results shall be communicated to Coal Company along with all relevant information, viz. colliery, seam, size fraction, declared grade/quality, place and date of sampling, the name of the consumer etc.

- 9.2 The referee sample shall be analysed only when the loading colliery challenges the result supported by his own analysis result of the sample kept with him within a period of 15(fifteen) days from the date of intimation of Regional Head of CCO's result. The analysis result of the referee sample shall be the final analysis result of the consignment.
- 9.3 The aggrieved colliery will be allowed to examine within another 15(fifteen)days whether the seal on the referee sample is intact. The referee sample part should be sent to a laboratory in a lot of at least 6 (six) samples with code number (which would not of course be made known to colliery representatives) under sealed condition. Effort shall be made to despatch the referee samples in his presence. Otherwise, the referee sample will be destroyed after 30(thirty) days from the date of intimating the results.
- 9.4 In case of unusual variation of analysis result of the referee part from the earlier result of the same sample, the reason for such variation may be analysed.
  - 9.5 System of rejecting suspicious test result shall be as per Appendix D of IS:436( Part I /Sec I) 1964 of BIS.
  - 9.6 For such cases, at least one sample in a quarter shall be collected under supervision of Regional Head of CCOhimself, so that the seasonal variation as also the work of the subordinate officers can be checked
  - 9.7 In order to ensure proper analysis, Regional Head of CCOshould have the analysis conducted periodically in more than one Govt. Accredited laboratory simultaneously and compare the results.

### ANNEXURE - V

### GOVERNMENT OF INDIA MINISTRY OF COAL OFFICE OF THE COAL CONTROLLER

### SAMPLING REPORT

- 2. Date of Sampling: 3. Name of Colliery: 4. Name of Owner/Company: 5. Pit/Incline/Quarry: 6.Place of Sampling: 7. Wagon/trucks No: 8. Consignee & Destination: 9. Name of Seam: (a) Including all bands Site No. 1 Site No. 2 (b) Excluding pickable bands (of 10cm & above) Site No. 1 Site No. 2 10.Declared Grade 11. Size fraction (ROM/STM/SLK):
  - 14. Name and Designation of the Company representative:

This is to certify that the samples were taken as per revised procedure of sampling laid down by Coal Controller in our presence.

13.Method of drawl of samples: (revised procedure laid down by Coal Controller/BIS

Signature of representative of Govt organizations/Academic Institutions with date & seal

For drawal of seam/dispatch samples)

12.Method of loading:

1.Sample No.:

Signature of the representative Signature of representative of Nominated Owner of of CCO weherever the Colliery with date & seal applicable with dt& seal

### **ANNEXURE-VI**

### (on company's letter head)

### **CERTIFICATE**

- 1. Name of the Mine/Colliery
- 2. Name of the Area
- 3. Name of the Nominated Owner & Company
- 4. Name of the Agent/Manager
- 5. Name of the seam
- 6. Name of the working section
- 7. Thickness of the working section
- 8. Thickness of the band

Certified that the above band/bands of the coal seam cannot be separate due to method of mining in vogue. This is also to certify that there will be no percentage (%) deduction from the production of coal on account of the shale/bands.

Signature of the Area General Manager With date and seal

Signature of the Agent With date and seal