

Minutes of The 4th Meeting of The CGPB Committee -V on Energy Minerals and Resources Held on 8th December, 2010 At Bireshwar Laskar Conference Room, Natural Energy Resources, M-IIB, GSI, Kolkata.

- 4.1.0** : The 4th Meeting of the CGPB Committee-V on Energy Minerals and Resources was held on 8th December, 2010 under the Chairmanship of Dr. K. Rajaram, Dy. Director General & HOD Central Region, GSI, & Head, Mission-II and also In-Charge of Natural Energy Resources, M-IIB, GSI, Kolkata.
- The list of participants is given in Annexure-I
- 4.1.1** : According a warm welcome to the participants of the meeting, Shri D. Bhattacharya, Director, Technical Directorate, NEnR, (M-IIB), GSI and Member Secretary introduced Dr. K. Rajaram, Dy. Director General & HOD Central Region, GSI, & Head, Mission-II as the Convener of CGPB Committee-V on Energy Minerals and Resources. He then gave a brief account on the role and functions of the Committee-V of CGPB and emphasized that the Committee is responsible for safeguarding the energy security of the country through close monitoring, planning and guiding the execution of exploration programme for solid fossil fuel leading to enhancement of the coal and lignite resources of the country. He pointed out that the progress of exploration work up to the fourth year of the XI Plan particularly during the last 7 months of F. Y. 2010-11 Period has been considerably slow. He hoped that all the concerned exploration agencies would make concerted effort to achieve the shortfall. Emphasising on the involvement of the State Govt. Agencies of NER in promotional work, he pointed out that except for Govt. of Nagaland and Assam, no other government agencies of NER have come forward for undertaking coal exploration. He mentioned that although Govt. of Nagaland has commenced work, Govt. of Assam has yet to initiate the exploration activities. He requested NEC to impress upon State Govt. Agencies of NER to undertake coal exploration in NER utilizing Promotional fund.
- 4.1.2** : Dr. K. Rajaram, Convener of the Committee welcomed all the members, member's representatives and invitees representing all the participating organization and appreciated the tireless efforts that have been put in by the Committee Members in formulating, implementing and judicious monitoring of tasks in pragmatic assessment of the resources of the solid fossil fuel of the country. The Chairman stressed the importance of the significant contribution that is being rendered by the apex body in mantling the advisory role not only to the Government but also to the planning Commission and policy makers. In the absence of viable alternative energy source, the present niche of 51% of coal in the energy sector is bound to go up in the coming years. The resource augmentation in the last year, that has been highlighted by the Committee, to the tune of 9.6 billion tones of coal and 824 million tonnes of lignite, is no mean an achievement which according to the Chairman, deserves acclaim and appreciation from all quarters. He has also pointed out that against the in-situ resource positions of 276.8 billion tones of coal and 39.9 billion tones of lignite, as indicated by the

Committee, the onus of bringing into production of 630 million tonnes of coal and 54 million tonnes of lignite, as envisaged by the planning Commission rests with the Committee. This calls for a perspective planning in the remaining part of the XI plan. In the near exhaustion of proximal surface and shallow sub-surface deposits the futuristic trend is essentially a search for deep seated coal seams. Any modus-operandi towards search for deep seated deposits involves three sequential approaches – effective use of the database created hitherto for interpretative 3-D modeling, fine tuning of the geometry thus arrived at for the buried deposits through reliable geophysical surveys and probing of the surmised deposit through deep drilling. International scenario reveals the success story of the geophysical surveys of China such as (i) passive, ultra-low frequency electromagnetic waves for CBM exploration and (ii) shallow, high resolution converted wave seismic survey for buried deposits. He has brought to the notice of the Members of the Committee regarding the modality of search for buried deposits in case of metalliferous deposits, as adopted in countries such as Canada, North America and Australia, involving stages such as (i) evaluation of the probability of detection of buried deposits making use of the surface and shallow sub-surface deposits (ii) optimizing ore detection and (iii) application of the optimization methodology. The other thrust areas warranting immediate attention, as elaborated by him, include (i) underground coal gasification (ii) gas resource from unconventional reservoirs such as organic shale (iii) exploration in the already explored CBM blocks etc. He concluded with the optimistic note that the expanded scope, as envisaged, brings out the dire necessity of a Base Document incorporating Five-year operational plan over balance resource area, for purpose of which a note-worthy contribution from each and every member is an essentiality.

- 4.1.3** : Shri I. A. Khan, Joint Advisor (Coal) Planning Commission, conveyed his concern regarding poor progress of drilling in the XI Plan and pointed out that it may affect the future work proposals submitted for approval. He hoped that suitable steps would be taken to enhance the existing drilling capacity of the exploration agencies so that coal resources of 630 million tonne of next years target can be achieved.
- 4.1.4** : Pointing out the increasing gap between the availability of coal resource vis-à-vis the rising demand for coal, Shri D. N. Prasad, Director (Technical), MoC drew the attention of the members of the Committee to the issues mentioned below:-
- (a) He requested Chairman/Convener, Committee-V to take stock of the progress of balance potential area of 2791 sq km to be covered in the XI Plan Period through regional exploration which has already been committed to the PMO and to undertake suitable steps to increase the drilling productivities so that the envisaged targets for XI Plan can be achieved.
- (b) As documented in the Shankar Committee's Report, it has been stressed to carry out exploration upto a depth of 1200m. He hoped that GSI would share its view with all exploration agencies engaged in exploration for coal.

(c) Provide information/data with regard to the availability of coal / shaly coal in Gujarat so that a suitable reply can be sent to the Parliamentary Committee.

(d) He has also requested to take suitable steps so that issue of making available GRs/Progress Reports of GSI to CMPDIL for ICRIS (Integrated Coal Resource Information System) and for identification of future blocks for undertaking detailed exploration is resolved and the work is completed quickly.

(e) MoC does not have any objection if SCCL is inducted to carry out exploration under promotional funding.

He gave emphasis on application of new methods of technology in Regional Exploration so that the pace of exploration can be hastened.

4.1.5 : Shri G. Dasgupta, Director, CGPB Secretariat, New Delhi informed the participants regarding the ensuing 48th CGPB to be held on 2nd & 3rd February, 2010 at New Delhi and requested the public sectors, private entrepreneurs to participate in the exhibition on Mission-III (IT). He requested the members to contribute concrete proposals for formulation of base paper on coal exploration in the country and adopt suitable measures to improve upon the National Inventory. He pointed out that the recommendation should take into account that the strategy for coal exploration in the base paper would serve as a guide to all the exploration agencies.

4.2.0 : **Follow up of action taken report on the decision of the 3rd Meeting of the CGPB Committee-V.**

4.2.1 : In connection with Para-3.2.1, the Member Secretary pointed out that though DMG, Rajasthan has fixed a meeting with M-IIB, Western Region, GSI, Jaipur as per 'Action Taken Report' submitted, no representative is present in the present meeting for discussion/clarification. Shri P. K. Nanda, Supdtg. Geologist, M-IIB, Western Region, GSI, Jaipur informed the Committee that Shri B. S. Jodha, Sr. Geologist has proceeded to Bikaner in this regard and DMG, Rajasthan may communicate the required information to him.

(Action: DMG, Rajasthan)

4.2.2 : Shri V. K. S. Visen, HOD (Exploration) informed in response to Para 3.2.3 that MECL has been able to shortlist an area close to Tirap in Margharita area of Assam with the help of North Eastern Coalfields. MECL will take up exploration at the earliest on approval of the same by CMPDIL. Reviewing the overall work scenario for coal exploration in the region, it was pointed out that the work in Nagaland had to be stopped in June due to paucity of funds and has now restarted. In view of non-commencement of work by Assam Govt., Director (S&T), NEC, Shillong informed that Govt. of Assam would jointly inspect/identify the area with MECL where work is to be taken up. Member Secretary pointed out that since all Central Agencies were already over stretched with exploration work in the Peninsular region and invitation was accorded to State Agencies to participate in promotional work. DGM, Assam had already committed in 2008 on the availability of personnel and logistics to take up the work in Saraipunj area and had proposed to carry out the work under Promotional funding. It was decided that Shri U. K. Mishra, Director, NEC would convene a meeting

of all State Govt. Agencies in Shillong in January, 2011 so that issues relating to coal exploration in North Eastern States can be discussed. On a query from Director, NEC Member Secretary also informed on the current status on the reported occurrence of coal in Tripura.

(Action: Director, NEC)

4.2.3 : In response to Para 3.2.4, SCCL informed that GSI & SCCL have finalized the location of boreholes in the Bugga-Khammamtoogu area considering the presence of forest area and exploration would commence shortly.

4.2.4 ; Regarding payment of promotional bills to DGM, Nagaland by CMPDIL as per Para 3.2.8, Shri Ahmed informed that the Finance Division of CMPDIL has already cleared the bill and the due amount would be paid shortly.

4.2.5 : In connection with Para 3.2.9, GSI pointed out that the resource data are not being provided by certain State Govt Agencies like CGM, Gujarat for the purpose of updation of National Inventory. Director (Technical), MoC, requested that the Regional GSI office at Ahmedabad may be requested to contact the CGM, Gujarat.

(Action: Member Secretary)

4.2.6 : In connection with Para 3.2.11 regarding constitution of a technical Committee for firming up modalities for payment of geophysical logging work of MECL, CMPDIL informed that bills are being passed on a case to case basis. The bills were held up since density probe were not done. It was decided that the Committee to be constituted for this purpose, would examine the issue and convey their recommendation to the Committee-V by February, 2011.

(Action: GSI, CMPDIL, MECL, SCCL & NLC)

4.2.7 : In response to Para 3.2.12 pertaining to HRSS survey in Godavari Valley Coalfield, NGRI informed that work is presently being carried out in Khagau and Chokhla area of Rajasthan and after completion of the same GVCF work will be taken up in March, 2011. Since the rate of drilling per meter is considerably less, NGRI informed about their difficulty in conducting the HRSS survey. NGRI had also requested for enhancing the rates. CMPDIL informed that the applicable rates have been approved by the Ministry and at this stage any enhancement in the rates will not be possible.

(Action: CMPDIL & NGRI)

4.2.8 : Regarding Para 3.2.14, NGRI informed that work in Rajasthan is underway and will be completed shortly.

4.2.9 : Referring to Para 3.2.17 regarding norms of borehole core logging, CIMFR handed over the draft norm to the Member Secretary for examination by Core Group Members.

(Action: Core Group Members)

4.2.10 : In response to the issue of Technical Report in Para 3.2.18, CIMFR informed that lack of seam correlation, borehole location etc. prevents the preparation of consolidated report It was requested by CIMFR that tentative correlation data may be provided so that consolidated seam properties and quality can be completed and published. GSI pointed out that it can not provide promotional data on its own accord. CMPDI opined that even if tentative/approximate correlation data is provided it

cannot be kept in public domain. CIMFR was requested to send their requirement in this regard to the Committee.

(Action: CIMFR)

4.2.11 : Regarding Para 3.2.19, CGM, Tamil Nadu was requested to take up any issues/clarification regarding information on lignite in Tamil Nadu with NLC bilaterally.

(Action: CGM, Tamil Nadu)

4.2.12 : Regarding Para 3.5.1 please refer to discussion under Para 4.2

4.2.13 : Referring to Para 3.5.3 regarding drilling in Godavari Valley Coalfield under promotional funding, Shri S. Babu Rao pointed out that so far only 7000m out of earmarked 14,000m of drilling in Godavari Valley Coalfield has been completed which accounts for around 50% of the target. Moreover, around 50,000m of drilling in XI Plan in the area falls in Forest Area. Convener advised that shortfall in drilling achievement should be pointed out well before the forth coming CGPB and constraints faced in achievement of drilling meterage due to forest area should be highlighted.

(Action: SCCL)

4.2.14 : In response to Para 3.5.7 pertaining to future Regional Exploration for coal in already explored CBM awarded blocks that have been handed over/relinquished, Member Secretary informed that a meeting has been scheduled with DGH, New Delhi on 23rd / 24th December, 2010 and the development would be communicated to the Committee Members.

(Action: Member Secretary)

4.2.15 : Regarding Para 3.5.8, the Shri G. Dasgupta, Director, CGPB Secretariat informed that before finalization, the draft Base Paper will be put in the Portal for comments after vetting by GSI through peer reviewing.

(Action: Member Secretary, CGPB)

4.2.16 : In connection with Para 3.5.10, GSI informed that exploration for coal has already been proposed in Bugga area during F.S. 2010-12.

4.2.17 : Regarding Para 3.5.13, GSI informed that action regarding UTM projected coordinate has already been initiated.

4.2.18 : In response to Para 3.5.14, CMPDIL informed that funds have already been received from MoC for payment of pending bills to NLC towards analysis of lignite cores of Ramnad basin by GSI and would be released shortly.

4.2.19 : Referring to Para 3.5.16, NLC informed that the reports of lignite exploration are being received.

4.2.20 : In response to the request of MECL to release payment under promotional funding as stated in Para 3.5.17, CMPDIL informed that pending bills of MECL are being released as the fund has now been received from MoC.

4.2.21 : In connection with Para 3.6.0, GSI informed that Regional exploration for coal in Nongphu-Nongiong area of Langrin Coalfield of West Khasi Hills, Meghalaya has been taken up in the F.S. 2010-12 by GSI, NER.

4.3.0 : Confirmation of the minutes of the 3rd Meeting of the Committee on Energy minerals and Resources (Gr. V of CGPB)

The minutes of the above meeting was confirmed by the Committee.

4.4.0 : Review of the work:

Representative of respective agencies presented the achievement and highlights of the work carried out by them.

4.5.0 : Discussion on Agenda Item:

4.5.1 : Promotional exploration for North Eastern Region:

CMPDIL explained that sufficient funds are available under promotional exploration and requested that all the North Eastern State Govt. Agencies may take up work in their respective State. He mentioned that although Govt. of Assam has submitted a proposal for taking up exploration in Saraipunj area, exploration is yet to commence. For detailed discussion and Action Taken Plan refer to Para 4.2.2 of the minutes.

4.5.2 : GSI pointed out that the lignite resource generated in the last few years pertaining to Gujarat is not available. All the Exploration Agencies were once again requested to send the resources established during the recent years in the prescribed format well before the due date for incorporation in the National Inventory.

(Action: All Exploration Agencies)

4.5.3 : Shri D. Bhattacharya, Director, GSI informed that CMPDIL is carrying out the esteemed work of coal resource classification of the country as per UNFC. CMPDIL was requested to make the data available for incorporation in the National Inventory. Similarly, NLC was requested for lignite resource as per UNFC.

In this connection, Shri Ahmed, CMPDIL informed that CMPDIL has already classified coal resources under CIL as per JORC (Joint Ore Reserves Committee). Under the circumstances, it will not be possible for CMPDIL to again classify the resources under UNFC. As part of the ICRIS Project resources as per ISP will be presented. The Chairman/Convener advised CMPDIL to submit an agenda for discussion in the 48th CGPB explaining the circumstances. NLC may also give a suitable agenda item in respect of lignite.

(Action: CMPDIL & NLC)

4.5.4 : GSI pointed out that all exploration Agencies carrying out detailed explorations are requested to carry out exploration and estimation of resources strictly following the ISP norms. During the leasing out of the block the same should be informed to the respective agencies.

(Action: All Exploration Agencies)

4.5.5 : GSI informed that due to technical as well as adverse ground condition, exploration in Harichandanapur block of Talcher Coalfield could not be completed within the scheduled time. Extension of exploration programme by six months was ratified by the Committee.

(Action: GSI)

4.5.6 : In connection with non-receipt of payment since 01.02.2010 by GSI from CMPDIL, Ranchi pertaining

to exploration under Promotional Scheme, CMPDIL informed that the payment will be made shortly.

(Action: CMPDIL)

- 4.5.7** : GSI stated that rates in connection with exploration under promotional Scheme for F.Y. 2010-2011 are yet to be received. CMPDIL replied that the rates would be revised after the receipt of RBI Index by CMPDIL.

(Action: CMPDIL)

- 4.5.8** : GSI stated that the bills on chemical and other analyses of samples related to coal and lignite exploration of both Regional and Promotional nature need to be raised in proper format by all four Units of CIMFR (Bilaspur/Dhanbad/Nagpur/Ranchi), CIMFR agreed to ensure following such a practice in future.

(Action: CIMFR)

- 4.5.9** : NGRI informed that Govt. of Rajasthan is examining the feasibility of CTL in selected lignite block of Rajasthan and have asked NGRI to undertake 2D HRS surveys to map the lignite seam etc. NGRI proposes to take up the work under promotional funding as the information generated could be used for future exploration. The Committee requested DMG, Govt. of Rajasthan to submit a suitable proposal before any decision on taking up the work under promotional funding.

(Action: DMG, Rajasthan)

- 4.5.10** : Regarding HRSS in Godavari Valley Coalfield please refer to Para 4.2.7 of the minutes

- 4.5.11** : SCCL stated that magneto-telluric survey in the north west of Dorla-Belampalli coal belt may be considered for finding the depth of occurrences of coal and continuity of coal seams. Member Secretary stated that magnetic survey may not be ideal for this purpose and SCCL may consider using Seismic Survey.

(Action: SCCL)

- 4.5.12** : NLC pointed out that in connection with the ILRIS Project, lignite exploration reports of GSI were required and the issue has been brought to the attention of the Committee earlier. Shri A. Bandopadhyay, Supdtg. Geologist, GSI explained that the process of updating of GSI reports in the GSI Portal is underway. All Post-2004 GRs have been uploaded and is available in the Portal. All the Pre-2004 reports are expected to be available by the end of December, 2010. However, the requirement of GRs of GSI with plans on suitable scale by CMPDIL & NLC have been noted and put on record.

- 4.5.13** : **Norms of borehole core logging by CIMFR**

Please refer to Para 4.2.9 of the minutes.

- 4.5.14** : **Raising of bills.**

CIMFR requested that logging charges of GSI borehole core may be included. GSI explained that geological logging of the boreholes was carried out by GSI concurrently with drilling and as such no provision for payment of logging charges again to CIMFR can be considered.

- 4.5.15** : **Geological Information regarding exploration block**

Please refer to Para 4.2.10 of the minutes.

4.5.16 : Supply of overall sample advice to CIMFR for sectional study by GSI

GSI informed that sample advice would be sent only when it would be felt necessary for carrying out overall analysis.

4.5.17 : Re-formulation of MoU between GSI & CIMFR.

On the request of CIMFR for the reformulation of MoU between GSI & CIMFR, GSI stated that the MoU is a bilateral issue and CIMFR can send a fresh proposal to GSI, if necessary.

(Action: CIMFR)

4.5.18 : Miscellaneous aspects related to billing of GSI.

GSI informed that subsequent to the re-organization of Coal Wing, the payment of bills related to chemical analysis of borehole core samples generated during regional exploration would be attended to by the respective Regional Offices of GSI from where the exploration work is being conducted. GSI was requested to send a letter on this aspect to CIMFR for records.

(Action: GSI)

It was explained to CMPDIL that for promotional work related to CBM, GSI will submit the bill separately for individual boreholes along with the relevant reports, Shri A. Bandopadhyay, Supdtg. Geologist, GSI requested CMPDIL to send the current rates for Palynological studies, Adsorption studies etc.

(Action: CMPDIL)

4.5.19 : Induction of MoEF, Govt. of India as Member of Committee.

In view of the recurrent problem related to Forest Area, Shri G. Dasgupta, Director, CGPB Secretariat requested the Committee to make a proposal for induction of MoEF, Govt. of India as a member in the Committee V of CGPB.

(Action: Member Secretary)

4.6.0 : Miscellaneous Discussions:

In response to a query, Dr. K. K. Bandyopadhyay, Chief Geologist, KDMIPE, ONGC informed that initial work related to Shale Gas has been taken up with drilling of one drill hole. Reports have been sent to Ministry of Petroleum & Natural Gas as well as DGH. Shri S. Adhikari, Country Manager, Arrow Energy opined that Sohagpur and Raniganj coalfields should be considered for CBM studies. He felt that limited numbers of Adsorption Studies are sufficient for the purpose of CBM appraisal since the objective is to estimate the gas holding capacity. He also requested to take up porosity test of the rocks.

Geological Survey of India informed that there is considerable shortfall in achievement of the target of geophysical logging being carried out under promotional funding during the F.Y. 2010-11. The Chairman advised to gear up the geophysical logging of GSI boreholes.

Member Secretary opined that GSI may share geophysical borehole logging data of the Narayanapuram-Pattayagudem area with SCCL.

On the request of DGM, Jharkhand to deploy GSI personnel for providing technical guidance in exploration of coal blocks in Jharkhand, the Convener informed that the State Govt. may approach the Training Institute of GSI which has the capability in Partnership and Capacity Building and impart training to the required personnel. He has also advised Member Secretary to address the requirements of DGM, Jharkhand

MECL pointed out that getting forest clearance would be of prime concern for carrying out drilling in both coal and lignite bearing areas.

CIMFR pointed out that there should be a rational reduction in the number of samples per meter since the number of samples to be analysed has increased considerably. Convener requested CIMFR to prepare a paper on all the aspects that has been raised by them and give suitable guidelines so that the process of analyses can be speed up.

ISM, Dhanbad requested for sharing of exploration data with academic institution.

4.7.0 : Concluding Remarks:

The Convener thanked all the members for their valuable suggestion and requested the Arrow Energy Ltd. to give their suggestion regarding collection of relevant data related to shale-gas and CBM. He hoped that the Committee would take suitable steps for induction of all parameters of work related to Geothermal Energy. He requested that Ministry of non-conventional Energy, GOI be invited to attend such meetings. He has also opined that all agencies engaged in carrying out geothermal exploration in the country may also be invited to attend such meeting in future.

Shri I. A. Khan, Joint Advisor (Coal) Planning Commission advised to assess the potentiality vis-a vis exploration of the deep seated coal resources.

Shri G. Dasgupta, Director, CGPB Secretariat expressed his sincere thanks to all the Members present for their overwhelming participation. He has also advised to explore information from the agencies carrying out geothermal exploration in the country.

Member Secretary in his concluding remarks requested all members to formulate future plan / programmes for the ensuing XII Plan on priority basis.

The Meeting ended with Vote of Thanks

LIST OF PARTICIPANTS ATTENDING 4TH MEETING OF THE CGPB COMMITTEE -V ON ENERGY MINERALS AND RESOURCES HELD ON 8TH DECEMBER, 2010 AT BIRESHWAR LASKAR CONFERENCE ROOM, NATURAL ENERGY RESOURCES, M-IIB, GSI, KOLKATA.

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Geological Survey of India

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