



*Government of India  
Institute of Secretariat Training and  
Management  
(Department of Personnel & Training)*

.....

**READING MATERIAL**  
*for*  
**ORIENTATION TRAINING PROGRAMME**  
*of*  
**ASSISTANTS, SECTION OFFICERS, UNDER  
SECRETARIES**  
*of*

**MINISTRY OF COAL  
GOVERNMENT OF INDIA**

*Sponsored by*  
**DEPARTMENT OF ADMINISTRATIVE REFORMS & PUBLIC GRIEVANCES**  
*As part of the*  
***DFID funded Capacity Building for Poverty Reduction Programme***  
**SEPTEMBER 2010**

## FOREWORD

The utility and need for training in any organization is universally accepted. This is more so in Ministries and Departments of Government of India, where apart from rules and regulations on various subjects, policies in the area of social welfare at National, State and grass-root level are formulated and implemented.

2. The focus of training is generally directed towards foundational level, where the newly recruited officials are required to undergo intensive training on various aspects of administration. Also, the concept of in-service training at various levels focusing on requirements as and when such officials move up on promotion is also firmly established.

3. However, one aspect, which generally goes un-noticed, is when officials are moved from one Ministry/Department to another, as a result of routine transfer policy or on promotion and also, officials directly recruited are allotted Ministries/Departments and join after receiving Foundational Training on general subjects. Such officials are faced with the problem of familiarizing and learning the working of the new Ministry/Department. The concept of any kind of Orientation training, focusing on the need of the Ministry/Department, is by and large not in place. The problem of such officers is more acute in Ministries/Departments implementing National Level policies in various critical sectors like water resources, where the policies/schemes are formulated at National Level but implemented through States at District, Block and Panchayat level. The problem is also acute in Ministries dealing with technical subjects like Department of Coal. The newly posted officers have to handle technical subjects without any familiarization training.

4. The newly posted officials find it extremely difficult to learn about the important policy/schemes and also their implementation mechanism at the block and village level.

5. DARPG as part of the DFID funded Capacity Building for Poverty Reduction Programme has taken initiative to bridge this gap by providing Orientation Training to the officials posted to a ministry on promotion, transfer, deputation or direct recruitment. The task of identifying training needs for such orientation training programme and based on the same, designing training and development of training material has been assigned to ISTM as Consultant.

6. As part of the above endeavour, five ministries were identified and a task team constituted in ISTM to carry out a Training Need Analysis, design an Orientation Programme and conduct one pilot programme in each of the Ministries. The task team successfully completed this activity. It gives me great

pleasure to state here that this orientation programme was received extremely well by the Ministries and the participants.

7. As a follow-up of the successful completion of the Orientation Programmes in five Ministries, DARPG entrusted Phase-II of the programme for six identified Ministries to ISTM. As in the earlier Phase the task included carrying out a need analysis and identifying training needs, design a training programme based on the identified needs and developing training material.

8. To undertake the task assigned, ISTM has constituted a consultancy team consisting of Sh. K.S. Kumar, Joint Director, Sh. Chandan Mukherjee, Deputy Director and Sh. S.K. Dasgupta, former Director, DOPT and Dr. A.N.Chakravarty, former Joint Director, ISTM (as External Consultant).

9. It gives me great pleasure that the consultancy team has conducted extensive research and studies by collecting data through questionnaire and interview along with the literature survey. Based on analysis of the data so collected training needs for the target groups of Assistants, Section Officers and Under Secretaries in Ministry of Coal has been identified.

10. Based on the identified training needs consultancy team has prepared Design brief, training programme brochure and training programme guide for the orientation training for the target groups on their posting to Ministry of Coal

11. I am confident that this report of the consultancy team giving training needs, design brief, programme brochure and programme guide for orientation training programme for the target group will prove to be useful in commencing the capacity building initiative in the area which has remained unattended till now.

**(KHWAJA M. SHAHID)**  
**DIRECTOR**

**September 2010**

# PREFACE

This report is an outcome of DARPG initiative as implementing agency for DFID funded Capacity Building for Poverty Reduction Programme to operationalise Orientation Training Programme for Assistants, Section Officers and Under Secretaries on their posting to the Department of Agriculture & Cooperation. DARPG assigned the task to ISTM as Consultant, which in turn constituted a consultancy team consisting of the undersigned along with Sh. Chandan Mukherjee, Deputy Director and Sh. S.K. Dasgupta, former Director, DOPT and Dr. A.N. Chakravarty, former Joint Director, ISTM (as External Consultant) to conduct training needs analysis, design training and develop training material. Consultancy team designed questionnaire and check lists for interview to collect data for identifying the training needs of the target groups. Data through questionnaire was collected from **310 officers and 05** officers were interviewed. The consultancy team also undertook extensive literature survey by collecting documents / reports from the Ministry.

2. Based on the data collected and analysis thereof, training needs of the target group have been identified and are given in **Chapter -6 of the Report**.

3. As the outcome of the identified needs, design brief, training design, programme brochure and programme guide indicating aim, objectives, contents, methodology, deliverables, evaluation and assessment parameters for Orientation Training Programme have been prepared and are at **Chapter 7to 10**.

4. The consultancy team hopes that this report will facilitate operationalisation of Orientation Training Programme for Assistants, Section Officers and Under Secretaries on their posting to new ministry and lead to enhanced productivity and improved decision making. We look forward to constructive suggestions / comments for improving our efforts, both in content and context.

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## **ACKNOWLEDGEMENT**

The initiative taken by Department of Administrative Reforms and Public Grievances to institutionalize a system of Orientation Training as a pilot project in five Ministries will go a long way in increasing efficiency and productivity of the concerned Ministries. The Institute of Secretariat Training and Management (ISTM) and the Consultancy Team express their deep gratitude to Department of Administrative Reforms and Public Grievances for entrusting this responsibility to them, which involves the entire gamut of collection of data, identification of training needs, design of training and also preparing the training material.

2. The Consultancy team is grateful to Secretary, Department of Administrative Reforms and Public Grievances and all other officers of the Department for their guidance and assistance extended to the team from time to time.

3. The Consultancy Team is grateful to Shri H.C. Aggarwal, Director, Ministry of Coal for coordinating the visit of the team to the Ministry for collection of data and for facilitating meeting with other officers to ascertain their views. The Team is also grateful to all the officers of his Division for providing relevant material pertaining to the Ministry and also, copies of various circulars issued by the Ministry from time to time.

4. The Consultancy Team is grateful to Shri H.C. Aggarwal, Director, Shri P.S.S. Reddy, Director, Shri K.C. Samria, Director, Shri Anand Prakash, Under Secretary and Ms. Subhash Sharma, Section Officer for sparing their valuable time for interacting with the Team and providing valuable suggestions and information relating to Orientation Training in the Ministry.

5. Dr. Khwaja M. Shahid, Director, ISTM has been a great source of strength and morale-booster by providing necessary guidance and assistance to the

Consultancy Team as and when required. The Team is grateful to Dr. Shahid for guidance in undertaking the task.

6. Last but not the least the Consultancy Team acknowledges the contribution and assistance provided by the supporting staff consisting of Smt. Veena Monga, Smt. Binita Pandey, Shri Ravi Shankar, and Shri Attar Chand. But for their untiring efforts, the Team could not have succeeded in submitting this part of the Report.

**K.S.Kumar,  
Chandan Mukherjee,  
S.K. Dasgupta and A.N.Chakravarty**

## **CONSULTANCY TEAM**

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- Sh. Chandan Mukherjee, Deputy Director, ISTM
- Sh. S.K. Dasgupta, (Former Director, Government of India), External Consultant
- Dr. A.N. Chakravarty, (Former Joint Director, ISTM)

## **STAFF MEMBERS**

- Smt. Veena Monga, PA
- Smt. Binita Pandey, PA
- Sh. Ravi Shankar, Peon
- Sh. Attar Chand, Peon

## **MENTOR**

**Dr. Khwaja M. Shahid, Director, ISTM**

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# **CHAPTER-1**

## **ORGANISATION**

### **1.1 SECRETARIAT SET UP**

The Secretariat of Ministry of Coal is headed by A Secretary who is assisted by one Additional Secretary, three Joint Secretaries (including the Financial Advisor), one Project Advisor, one Economic Advisor, seven Directors, one Deputy Secretary, nine Under Secretaries, eighteen Section Officers, one Assistant Director (Official Language), one Controller of Accounts, one Deputy Controller of Accounts, two Senior Accounts Officers and four Assistant Accounts Officers and their supporting staff.

### **1.2 FUNCTION OF THE MINISTRY OF COAL**

The Ministry of Coal is concerned with exploitation, development and exploitation of Coal and Lignite reserves in India. The work allocated to the Ministry of Coal (includes Subordinate office or other organisation including PSUs concerned with their subject) under the Government of India Allocation of Business) Rules, 1961, as amended from time to time are as follows:

- i. Exploration and development of coking and non-coking coal and lignite deposits in India
- ii. All matters relating to production, supply, distribution and prices of coal.
- iii. Development and operation of coal washeries other than those for which the Department of Steel is responsible.
- iv. Low Temperature carbonization of coal and production of synthetic oil from coal.
- v. Administration of the Coal Mines (Conservation and Development) Act, 1974 (28 of 1974).
- vi. The Coal Mines Provident Fund Organisation.
- vii. Administration of the Coal Mines Provident Fund and Miscellaneous Provision Act, 1948 (46 of 1948).
- viii. Rules under the Mines Act, 1952 (32 of 1952) for the levy and collection of duty of excise on coke and coal produced and dispatched from mines and administration of rescue fund.
- ix. Administration of the Coal Bearing Areas (Acquisition and Development) Act, 1957 (20 of 1957).
- x. Administration of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957) and other Union Laws in so far the said Act and Laws relate to coal and lignite and sand for stowing, business incidental to such administration including questions concerning various States.

xi. Administration of Coal Mines Nationalisation Act, 1973 (26 of 1973).

1.2.1 A consultative Committee consisting of 16 Member of Lok Sabha and 4 Member of Rajya Sabha has been set up under the Chairmanship of Shri Sriprakash Jaiswal, Minister of State (I/C) for Coal & SPI for the Ministry of Coal.

### **1.3 PUBLIC SECTOR/JOINT SECTOR COMPANIES**

Coal India Limited with its headquarters at Kolkata is the apex body in Coal Industry under the administrative control of the Ministry of coal. It is responsible for laying down policy guidelines and work coordination with its subsidiary companies. CIL has been entrusted with the responsibility of investment planning, manpower management, purchase of heavy machineries, financial budgeting etc on behalf of all its subsidiaries. Coal India Ltd. (CIL) has following 8 subsidiary public sector undertaking companies under its control:-

- (a) Bharat Coking Coal Limited (BCCL), Dhanbad, Jharkhand
- (b) Central Coalfields Limited (CCL), Ranchi, Jharkhand
- (c) Eastern Coalfields Limited (ECL), Sanctoria, West Benal
- (d) Western Coalfields Limited (WCL), Nagpur, Maharashtra
- (e) South Eastern Coalfields Limited (SECL), Bilaspur, Chhattisgarh
- (f) Northern Coalfields Limited (NCL), Singrauli, Madhya Pradesh
- (g) Mahanadi Coalfields Limited (MCL), Sambalpur, Orissa
- (h) Central Mine Planning and Design Institute Limited (CMPDIL), Ranchi, Jharkhand

1.3.1 The Neyveli Lignite Corporation Limited (NLC) with registered office at Chennai and corporate office at Neyveli in Tamil Nadu is engaged in exploitation and excavation of lignite, generation of thermal power and sale of raw lignite.

1.3.2 Singareni Collieries Company Limited (SCCL) - A Joint Sector Undertaking of Government of Andhra Pradesh and Government of India with equity capital in the ratio of 51:49.

### **1.4 SUBORDINATE OFFICE AND AUTONOMOUS ORGANISATION**

The following subordinate office and autonomous organisation are under the administrative control of this Ministry of Coal:-

- (i) Office of the Coal Controller's Organisation (CCO) - a subordinate office.
- (ii) Coal Mines Provident Fund Organisation (CMPFO) - an autonomous body.

## **1.5 COAL CONTROLLER'S ORGANISATION (CCO)**

1.5.1 The Coal Controller's Organisation is a subordinate office of Ministry of Coal, having its headquarters at Kolkata and field offices at Dhanbad, Ranchi, Bilaspur, Nagpur and Kothagudem.

The Coal Controller Organisation discharges various statutory functions derived from the following statutes:

- i) The Colliery Control Order, 2000 and the Colliery Control Rules, 2004.
- ii) The Coal Mines (Conservation and Development) Act, 1974 and the Coal Mines (Conservation & Development) Rules, 1975.
- iii) The Collection of Statistics Act, 1953 (32 of 1953) and the Collection of Statistics (Central) Rules, 1959.
- iv) The Coal Bearing Areas (Acquisition & Development) Act, 1957 (20 of 1957).

The Coal Controller's Organization also discharges the following functions:

- (a) Monitoring progress of development of Captive Coal/Lignite Blocks and their associated end-use projects.
- (b) Monitoring of Washeries

## **1.6 COAL MINES PROVIDENT FUND ORGANISATION (CMPFO)**

The Coal Mines Provident Fund Organisation is an autonomous body under the Ministry of Coal. Government of India established in 1948 through an Act of Parliament to administer different schemes of Provident Fund, Pension and Deposit Linked Insurance for coal miners. These schemes are administered by a tripartite Board of Trustees, (BOT) consisting of representatives representing Union of India, State Govt. employers' and employees' representatives under the Chairmanship of Secretary (coal), Govt. of India. The Commissioner is the CEO and ex-officio member of the Board.

The Organisation renders services to approx. 4.84 Lakh Provident Fund subscribers and about 3 Lakh pensioners. The Headquarters of CMPFO is at Dhanbad and its 24 Regional Offices are spread all over country.

### **1.6.1 Coal Mines Provident Fund Scheme**

At the end of the year 2008-09 the total number of units covered stood at 928 excluding coke plants operating in Private Sector. Live membership of the Provident Fund as on 31.12.2009 is approx 4.84 lakh.

### **1.6.2 Coal Mines Deposit Linked Insurance Scheme**

In the event of death of an employee in harness who was a member of Coal Mines Provident Fund his/her nominee is entitled to receive in addition to the Provident Fund, an amount equal to the average balance, in the account of the deceased during the preceding 3years, subject to a maximum, of Rs.10,000/-.

In accordance with the Scheme, the employers are required to contribute at the rate of 0.5% of aggregate wages of covered workers. The Central Government is also required to pay half of the amount contributed by the employers under the Scheme.

The CMDLI Scheme was discontinued from operation by the Central Government from 24.3.2009 for the employees of public sector coal companies. As per the provision of the scheme, the Scheme is applicable to the members of Coal Mines Provident Fund Scheme and for meeting the cost of administration of the Private Sector employer's contribute @0.1% of aggregate wages and the Central Government contributes 50% thereof i.e. 0.05% of aggregate wage.

### **1.6.3 Coal Mines Pension Scheme, 1998**

The Coal Mines Pension Scheme has come into force with effect from the 31st day of March, 1998. The number of claims of Pension settled in 2009-10 (upto 31.12.2009) is 18,182. The total amount disbursed under the Coal Mines Pension Scheme, 1998 is Rs.450.22 Crores approx.

The highlights of the Scheme are given below: -

#### **Corpus of the Fund and its sustainability: -**

The Pension Fund consists of the following: -

- (a) Net assets of the Coal Mines Family Pension Scheme, 1971 as on the appointed day.
- (b) An amount equivalent to two and one-third percent of the salary of the employee, being the aggregate of equal shares of the employee and the employer from their respective contributions to be transferred from the appointed day from the Fund of employee.
- (c) An amount equivalent to two percent of the salary of the employee from the first day of April, 1989 or the date of joining, whichever is later, upto the 31st day of March, 1996 and two percent of the notional salary of the employee from the 1<sup>st</sup> day of April, 1996 or the date of joining, whichever is later to be transferred from his salary.
- (d) An amount equivalent to one increment to be calculated on the basis of the salary of the employee as on the first day of July, 1995 or the date of joining, whichever is later, to be transferred from the first day of July, 1995 or the date of joining, whichever is later, from the salary of the employee.
- (e) An amount equivalent to one and two-third of the salary of the employee to be contributed by the Central Government from the appointed day.

(f) Amounts to be deposited by Pension members including new optee in terms of the provisions of the Scheme.

In 2009-10 (upto 31.12.2009) **Rs.409** crores approx was diverted to Pension Fund from Provident Fund. Net accretion in the pension fund as on 31<sup>st</sup> Dec. 2009 (without Government Shares and interest) is Rs. 800 crores approx. As per provisions of the Pension Scheme valuation of the Pension Fund will be done every third year by an Actuary to be appointed by the Board of Trustees. The work of evaluation of Pension Fund was entrusted to the National Institute of Financial Management, Ministry of Finance, Government of India, Faridabad, Haryana. Now Commissioner, CMPFO has intimated that the NIFM has closed the assignment on the ground that complete data/information has not been provided. However, efforts are being made to get the contract revised and have the work completed by NIFM.

**COVERAGE: -**

(a) All employees who are members of the ceased Coal Mines Family Pension Scheme,

1971 and are on rolls on 31st March, 1998.

(b) All such employees who are appointed on or after 31st March, 1998.

(c) All such optee members who were in service from 1.4.94 to 31.3.98 opted for membership of the Pension Fund in form PS-I and PS-2 as the case may be with the condition specified under the Scheme.

(d) All such employees who dies while in service during the period 01.04.1994 to 31.03.1998 are treated as deemed optee of the scheme vide G.S.R. No.521 (E) dated 12.08.2004.

**BENEFITS**

- (a) Monthly Pension.
- (b) Disablement Pension.
- (c) Monthly widow or widower pension.
- (d) Children Pension
- (e) Orphan Pension.
- (f) Exgratia Payment.

# **CHAPTER-2**

## **COAL EXPLORATION & RESOURCES**

### **2.1 INTRODUCTION**

Exploration for coal in the country is carried out in two stages i.e. the Regional Exploration and Detailed Exploration. The regional exploration for coal is carried out by the Government organizations whereas detailed exploration is largely undertaken by coal companies.

#### **2.1.1 Regional and Promotional Exploration**

In first stage of exploration, Geological Survey of India (GSI, under Ministry of Mines) undertakes Regional Exploration of large areas to find out the broad availability of coal seams, geological structure, resource etc. on a systematic routine basis. In order to supplement and augment the efforts of GSI, Ministry of Coal (MoC) is also undertaking regional exploration of coal on promotional basis. A central sector scheme of Promotional Exploration of Coal and Lignite has been introduced in 1989 and is continuing on plan-to-plan basis through Mineral Exploration Corporation (MECL), GSI and CMPDI. The reconstituted Committee-V (on Energy Minerals Resources) of Central Geological Programming Board approves the programmes, coordinates and reviews the work. CMPDI acts as a nodal agency for disbursement of funds for Promotional Exploration besides carrying out technical supervision of MECL's work in coal sector. The Promotional Exploration programme for XI Plan envisages to undertaking 7.50-lakh metre of drilling (4.0 lakh metre in coal and 3.5 lakh metre in lignite) along with sub components of creation of coal & lignite information system and CBM studies.

Besides, preparation of Coal data base and Lignite data base has also been undertaken during X Plan under funding from Ministry of Coal under promotional exploration which is continuing in the XI Plan as well.

#### **2.1.2 Detailed Exploration**

In the second stage, Detailed Exploration is carried out in potential areas identified through Regional/Promotional Exploration. Such blocks are taken up for detailed drilling and geological assessment to bring the reserves into Proved category to increase the confidence level. The Geological Reports of such detailed exploration form the basis of Mine Feasibility Studies/Mining Plans and formulation of Project Reports for mining and updation of National coal Inventory. Detailed exploration in areas of coal PSUs is funded by respective companies whereas some of the Captive Mining block allocates are also funding detailed drilling in blocks allocated to them. In addition, the MoC's Plan scheme of

Detailed drilling in non-CIL Blocks aims at covering exploration of the blocks in order to reduce the time lag between allotment and development of blocks. The scheme is continuing on plan-to plan basis and it is envisaged to undertake 13.50 lakh metre of drilling in Non-CIL blocks during the XI Plan through CMPDIL as well as outsourcing.

### **2.1.3 Guideline for conducting Detailed Exploration of captive coal and lignite blocks by the block allottees**

All regionally explored/unexplored coal blocks already allotted or to be allotted can be taken for detailed exploration by the allottees on their own as per the guidelines. The block allottees are required to inform and submit to CMPDI the detailed exploration programme with time schedules before starting the exploration activities. All the statutory licenses and clearances like prospecting license, forest clearance etc should be obtained by the allottee, as per existing laws & statues before initiating exploration activities in respective areas. Other aspects for detailed exploration namely exploration coverage, borehole spacing/density, drilling, survey/study & analysis, exploration supervision, submission of Geological reports etc. are all covered in these guidelines. The detailed guidelines are available in the web site of the Ministry at (<http://coal.nic.in/letters.htm>).

## **2.3 COAL RESOURCES**

### **2.3.1 Inventory of Geological Resources of Coal in India**

As a result of exploration carried out up to the maximum depth of 1200metre by the GSI, CMPDI, SCCL and MECL etc, a cumulative total of 267.21 Billion tonnes far been estimated in the country as on 1.4.2009.

### **2.3.2 Categorization of Resources**

The coal resources of India are available in older Gondwana formations of peninsular India and younger Tertiary formations of north-eastern region. Based on the results of regional/ promotional Exploration, where the boreholes are normally placed 1-2 Km apart, the resources are classified into 'Indicated' or 'Inferred' category. Subsequent detailed exploration in selected blocks, where boreholes are less than 400 metres apart, upgrades the resources into more reliable 'Proved' category.

## **2.3 COAL CORE ANALYSIS CAPACITY CREATION**

The scheme for expansion of coal core analysis capacity by Central Institute of Mining and Fuel Research (CIMFR) for quality evaluation of coal cores explored from different region of India in XI Plan has been approved by EFC, through CIL funding. Various meetings had been held and draft expansion proposals discussed. The final proposal from CIMFR as per the comments made by CIL is awaited.

# **CHAPTER -3**

## **COAL MINING POLICY AND MAJOR INITIATIVES**

### **3.1 LEGISLATIVE CHANGES**

#### **3.1.1 Competitive Bidding**

3.1.1.1 With the progressive allocation of coal blocks, the number of coal blocks available for allocation is declining, while the number of applicants per block is increasing, as the demand for coal keeps increasing. This has made selection of an applicant in respect of a block difficult and vulnerable to criticism on the ground of lack of transparency and objectivity.

3.1.1.2 While efforts are on hand to continuously add blocks to the captive list, it is also expected that the demand for blocks would remain far ahead of supply. Therefore, there is an urgent need to bring in a process of selection that is not only objective but also demonstrably transparent. Auctioning through competitive bidding is one acceptable selection process.

3.1.1.3 A Bill to amend the Mines and Mineral (Development & Regulation) Act, 1957 seeking to introduce competitive bidding system for allocation of coal blocks for captive use was introduced in the Rajya Sabha. It has since been referred to the Standing Committee on Steel and Coal for detailed examination.

#### **3.1.2 Guidelines for Mine Closure**

With a view to restore mined out areas to the primary level to the extent possible, it has been decided to make it mandatory to prepare mine closure plans for which Ministry of coal has issued guidelines for adoption by coal mine owners. This would help in addressing environmental issues related to coal mining. These guidelines are available on the website of this Ministry.

#### **3.1.3 Status of the Coal Mines (Nationalisation) Amendment Bill 2000**

The Coal Mines Nationalisation Amendment Bill 2000 was introduced in the Rajya Sabha in April 2000 with an objective of participation of the Private Sector in the field of Coal Mining. The Standing Committee on Energy, to whom it was referred to by the House, submitted its report in August 2001 recommending passage of the Bill. With stiff resistance from the Trade Unions, the Bill could not be moved further.

### **3.2 Captive Coal Mining Blocks**

3.2.1 Under the Coal Mines (Nationalisation) Act, 1973, coal mining was mostly reserved for the public sector. By an amendment to the Act in 1976, two

exceptions to the policy were introduced viz., (i) captive minning by private companies engaged in production of iron and steel and (ii) sub-lease for coal mining to private parties in isolated small pockets not amendable to economic development and not requiring rail transport.

3.2.2 The Coal Mines (Nationalisation) Act, 1973 was amended in June, 1993 to allow coal mining for captive consumption for generation of power, washing of coal obtained from a mine and other end uses to be notified by Government from time to time. As per the provisions in section 3 (3) (a) (iii) of the coal Mines (Nationalisation) act, 1973, a company engaged in production of iron and steel, generation of power, production of cement, and production of syn-gan obtained through coal gasification (underground and surface) and coal liquefaction only can do coal mining in India for captive consumption.

3.2.3 The Central Government, a Government company (including a State Government company), a Corporation owned, managed and controlled by the Central Government can do coal mining without the restriction of captive use.

3.2.4 The allocation of coal blocks to private parties is done through the mechanism of an Inter-Ministerial and Inter-Governmental body called the Screening Committee. The Screening Committee is chaired by the Secretary (Coal) and has representation from Ministry of Steel, Ministry of Power, Ministry of Industry and Commerce, Ministry of Environment and Forest, Ministry of Railways, Coal India Limited, CMPDIL and the concerned State Governments.

3.2.5 There are 229 (148 existing and 81 newly identified) coal blocks for allocation to specified end users and Govt. companies on display on the website of Ministry of Coal. 208 coal blocks have so far been allocated to eligible companies.

3.2.6 Initiatives taken by the Ministry of expediting production form captive blocks were as follows: -

- a) Frequent and regular meetings of Screening Committee.
- b) Allowing disposal of coal produced during development phase through CIL subsidiaries, who will procure it at a transfer price to be determined administratively.
- c) Taking bank guarantee for adhering to the schedule as per the specified milestones.
- d) Laying bench mark time lines for achieving various milestones from allocation to coal production, advance submission of development schedule by the allocate and cancellation of allocation for non-adherence.

### **3.2.7 Identification of new coal blocks**

In consultation with CIL and NLC, 47 new coal blocks with geological reserves of about 17721.52 million tonnes and 38 lignite blocks with geological

reserves of about 6240.34 million tonnes have been identified. There are 25 remaining coal blocks with geological reserves of about 7262.66 million tonnes from the old list. Process of identification and earmarking of new coal/lignite blocks would be finalized after the mode of allocation is determined by the Govt.

### **3.2.8 Notification of Coal Gasification and Coal Liquefaction as specified end uses**

Guidelines for conducting Underground Coal Gasification and allocation of blocks for UCG have been issued on 13.7.2009. Five lignite blocks and two coal blocks have been identified for allocation.

## **3.3 TECHNOLOGICAL INITIATIVES**

In order to augment coal production from underground mines various mass production technologies like continuous miners, long-well power supported technology and short-well technologies etc. are being deployed as per the techno economic feasibility. SCCL has taken up two deep-seated underground long-well projects namely Adriyala and Jallaram. SECL is implementing short-well technology in Balrampur underground mines. WCL, SECL and SCCL have adopted continuous miner technology in some of their mines. CIL envisages taken up 7 number of green fields long-well projects in association with global players for which expression of interest has been invited. Further high-well mining technology is also being adopted in SECL on experimental basis.

## **3.4 CLEAN COAL AND WASHERY CAPACITY**

3.4.1 Coal washing is an important area from economic and environment point of view. A number of studies carried out earlier have clearly highlighted benefits of using washed coal in improving the economics of power generation and also reduction of emissions. The directive of Ministry of Environment and Forests restricts the use of coal containing more than 34% ash content in power stations located 1000 km away from pit heads. With this as a driver, a number of power utilities have shown inclination to use washed coal for power generation and also coal washing is one of the clean coal technologies prior to combustion of coal.

3.4.2 Coal India is heading in a big way for Coal Beneficiation of all types of coals. The present installed capacity of washery for thermal coal of about 110 Mt per annum is envisaged to reach about 250 Mt per annum in the next five (5) years time.

3.4.3 To meet the demand supply gap of washed coal, guidelines for setting up of coal washeries on Public Sector Coal Company's land have been issued by Coal Ministry in September' 05. Accordingly, subsidiary coal companies of CIL are extending necessary assistance to facilitate setting up coal washeries on their land to the private operators.

3.4.4 CIL has also decided in principle to wash all inferior grade coal linked to non-pit head power stations by setting up washeries with the state-of-the art technology on Build-Operate-Maintain (BOM) concept where CIL will provide the capital funding and other infrastructure facilities to the BOM operator. Further, it has been decided that all new opencast projects of 2.5 Mt and above capacity, which are not linked to pithead power stations should be designed with integrated washery.

### **3.5 COAL BED METHANE (CBM)**

3.5.1 New area of clean coal technologies like Coal bed Methane (CBM) and Coal Mine Methane (CMM). Underground Coal Gasification (UCG) and Coal Liquefaction are under focus and Government is taking all the necessary steps for development of these areas within the existing legal framework.

3.5.2 CBM is one of the potential greenhouse gases and is invariably associated with coals during their formation. CBM is in absorbed state on the coal surface and possess a potential threat from safety angle during mining operation. If extracted separately, it forms a supplementary source of energy. In view of the abundant resource of coal in the country, there is a significant scope for commercial development of CBM. Methane associated with virgin coal-beds is conventionally termed as Coal bed Methane. Similarly, extraction of methane from working mines is termed as Coal Mine Methane (CMM).

3.5.3 Consequent to the formulation of CBM Policy in 1997, Govt. of India has so far allotted 26 CBM blocks to various operators for exploration and exploitation of CBM. 10 more blocks were offered in the 4<sup>th</sup> round of bidding concluded in Oct'09. The offers received against this bidding are under consideration of the Government for their allotment for commercial development.

CBM is jointly managed by Ministry of Coal and Ministry of Petroleum and Natural Gas. CMM related activities are being addressed by Ministry of Coal separately.

### **3.6 UNDERGROUND COAL GASIFICATION (UCG)**

Underground coal gasification involves injecting steam and air or oxygen into an underground coal seam to form a combustible gas that can be used as a fuel or chemical feedstock at the surface.

In India, UCG was taken up in mid 1980's by ONGC and CIL under technical collaboration with erstwhile USSR. Although one lignite block "Merta Road" in Rajasthan was found suitable, pilot appraisal could not be taken up due to apprehension of contamination of ground water.

Subsequently, consequent to signing of MoU between CIL & ONGC in November' 06 for taking up a pilot scale studies for UCG, CMPDI prepared data

packages for 5 prospective UCG sites. Out of the five sites, one Kasta block in Raniganj coalfield was selected by the consultant engaged by ONGC.

### **3.7 REVISION OF RATES OF COAL ROYALTY ON COAL/LIGNITE**

Royalty on coal and lignite was last revised w.e.f. 01.08.2007. Royalty on coal and lignite is payable under Section 9 (1) of the Mines and Minerals (Development and Regulation) Act, Section 9 (3) of the MMDR Act, 1957 empowers the Central Government to enhance or reduce the royalty rates in respect of any mineral. The proviso to Section 9 (3) of the Act prevents the Central Government from enhancing the rate of royalty in respect of any mineral more than once during any period of three years. Accordingly, a new Study Group on revision of rates of royalty on coal and lignite has been constituted on 04.02.2010.

## **CHAPTER-4**

### **COAL AND LIGNITE PROJECTS**

#### **4.1 COAL PROJECTS APPRAISAL & MONITORING**

4.1.1 On being conferred the 'Navratna' status, Coal India Limited (CIL) is now empowered to sanction/ approve and implement all its projects including those which are beyond the delegated powers of the Boards of its subsidiaries. Being conferred the status of "Mini Ratna" Board of directors of Northern Coalfields Limited (NCL), Western coalfields Limited (WCL), South Eastern Coalfields Limited (SECL), Mahanadi Coalfields Limited (MCL) and Central Coalfields Limited (CCL) are empowered to approve projects costing up to Rs. 500 crores. The Board of Directors of Central Mine Planning & Design Institute Limited (CMPDIL) is empowered to approve projects costing up to Rs. 300 crore as the company comes under the Mini Ratna category-II. Board of Directors of Eastern Coalfields Limited (ECL) and Bharat Coking Coal Limited (BCCL) can approve coal projects up to Rs. 20 crores. Board of Directors of Singareni Collieries Company Limited (SCCL) is also empowered to approve coal projects up to Rs. 500 crores. Projects of SCCL costing above Rs. 500 crores are approved by the Govt. through EFC/PIB and CCEA. Environmental clearance is mandatory before the project proposal is posed to Cabined Committee on Economic Affairs for approval.

4.1.2 Coal projects are monitored in the coal companies at colliery level, area level and HQ level. Remedial actions, wherever warranted, are taken. Quarterly Project Monitoring Reports of projects costing Rs. 20 crore and above are submitted by all companies to this Ministry as well as Ministry of Programme Implementation. In the Ministry of Coal, major coal projects costing above Rs. 100 crore are monitored at the level of Secretary (Coal) on quarterly basis. In this meeting representative from Planning Commission, Department of Expenditure, Ministry of Statistics & Programme Implementation and Ministry of Environment & Forest also participate. Such meetings are taken on the basis of inputs furnished by the companies indicating various problems encountered by them in implementation of projects under their jurisdiction and command. Based on the decision taken in the review meetings, appropriate follow up action is taken both in the Ministry of Coal and by the coal companies concerned. This apart, whenever coal companies approach the Ministry for extending Governmental support for resolution of any pending issues affecting implementation of coal projects, the matter is taken up by the Ministry at the appropriate level with the concerned authorities.

#### **4.2 MAIN REASONS FOR SLIPPAGE IN THE IMPLEMENTATION OF PROJECTS**

- a. Delay in acquisition of land and associated problems of rehabilitation.

- b. Delay in diversion of forest land
- c. Delay due to non-approving/permitting exploration in forest area.
- d. Delay due to adverse geo-mining condition.
- e. Delay due to fire.
- f. Delay due to law & order.
- g. Other misc. problems such as delay or discontinuance of work by contractor, non-participation in tender, DGMS permissions.
- h. Delay in supply & erection by main contractors i.e. BHEL in case NLC's Power Projects

### **4.3 STEPS TAKEN TO IMPROVE PROJECT IMPLEMENTATION**

#### **4.3.1 Land acquisition and rehabilitation**

- i. Vigorous follow up action with concerned State Govt. Officials are being actively done to expedite land acquisition proceedings.
- ii. Regular meetings with State Authorities viz. Land Revenue Commissioner, LR Secretary, Chief Secretary and Committees constituted by respective State Govts are held to sort out acute problems.
- iii. Forest officials are contacted on regular basis at District and Tehsildar level to fulfill the requirement & queries. Periodical contacts are done with the Regional Office & Main office of MoEF for expeditious clearance of the forestry proposals.
- iv. Discussions held with land owners/villagers for selection of rehabilitation site and they are persuaded to accept the rehabilitation benefits and to shift to the rehabilitation site.

#### **4.3.2 Geo-mining constraints**

Sophisticated geological and geo-physical exploration technique adopted for advance forecasting of geo-mining condition.

### **4.4 PROJECT MANAGEMENT**

- i. Director (Projects & Planning) posted in each company with overall responsibility of implementation of projects.
- ii. Comprehensive guidelines for project formulation and monitoring issued by the Govt.
- iii. The system of monitoring at various levels has been standardized.
  - Project monitoring is done on monthly basis or at shorter intervals at the area level by GM/CGMs and by Director (Projects) and CMDs at corporate level.
  - Status of project is also reviewed at every Company Board meeting by exception.
  - Mandatory review of the projects are carried out at company level when the expenditure of the project exceeds 50% of the sanctioned capital.

- Projects costing Rs.100 crores & above are also reviewed in CIL Board by exception.
- Progress reports in respect of projects costing Rs. 100 crores & above are also submitted to Department of Programme Implementation regularly.
- Department of Programme Implementation regularly monitors the implementation of projects costing 20 crores and above.
- Quarterly review in the administrative Ministry/Department at the level of Secretary is taken for major projects.

# **CHAPTER-5**

## **COAL PRODUCTION, MARKETING & DISTRIBUTION**

### **5.1 COAL PRODUCTION**

5.1.1 Through sustained programme of investment and greater thrust on application of modern technologies, it has been possible to raise the production of coal from a level of about 70 million tonnes at the time of nationalization of coal mines in early 1970's to 365.09 million tonnes (All India – including Meghalaya) in 2009-10 (up to December 2009).

5.1.2 Coal India limited and its subsidiaries are the major producers of coal. 295.52 million tonnes of coal was produced by Coal India Ltd. and its subsidiaries during 2009-10 (up to December 2009) as against the production of 275.75 million tonnes during the same period of the year 2008-09 showing a growth of 7.2%

5.1.3 Singareni Collieries Company Limited (SCCL) is the main source for supply of coal to the southern region. The company produced 36.55 million tonnes of coal during 2009-10 (up to December 2009) against 32.70 million tonnes during the corresponding period last year. Small quantities of coal are also produced by TISCO, IISCO, DVC and others.

### **5.2 COAL DISTRIBUTION AND MARKETING**

The Marketing Division of CIL coordinates marketing activities for all its subsidiaries. CIL has set up Regional Sales Offices and Sub-Sales Offices at selected places in the country to cater to the needs of the consuming sectors in various regions.

### **5.3 Linkage Committees**

5.3.1 Two types of linkage committees function for deciding the long term and short-term availability of coal and distribution to the consumers belonging to Cement, Power & Steel including Sponge Iron Units.

1. Standing Linkage Committee (Long-term)
2. Standing Linkage Committee (Short-term)

5.3.2 Standing Linkage Committee [Long-term] for Power, Cement and Sponge Iron considers requirement of coal of consumers at the planning stage and links the requirement in the long-term perspective from a rational source after examining factors like quantity and quality required, time frame, location of the consuming plants, transport logistics, development plan for the coal mine etc.

5.3.3 Linkages of coal to thermal power stations used to be allocated by Standing Linkage Committee (ST) on quarterly basis keeping in view the recommendation made by the Central Electricity Authority (CEA). The CEA recommendations were based on the power generation programme, ground stocks with individual powerhouses etc.

5.3.4 New Coal distribution Policy (NCDP) has introduced the concept of “Letter of Assurance” (LOA), which provides for assured supply of coal to developers, provided they meet stipulated milestones. Once the milestones as stipulated in the LoA are met by the developers, LoA holders would be entitled to enter into Fuel Supply Agreements [FSAs] with the coal companies for long-term supply of coal. The quantity of coal to be supplied along with other commercial terms and conditions are covered in the FSA itself.

## **5.4 ALLOCATION OF COAL TO POWER, CEMENT AND STEEL PLANTS**

5.4.1 The allocation of coking coal to steel plants was earlier made by the Coal Controller. However, after deregulation of coking coal, the supplies of coking coal are being made by the coal companies themselves on the basis of linkages established by SLC (LT) or on the basis of their existing commitments.

## **5.5 CEMENT PLANTS**

The dispatch to cement plants including their captive power plants, from CIL during 2009-10 (April-Dec) was 0.71 million tones as against 0.67 million tones during the same period last year.

## **5.6 MODES OF TRANSPORT**

Important modes of transport of coal and coal products in CIL are Railways, Road, Merry-Go-Round Systems (MGR), Conveyor Belts and the Multi Modal Rail-cum-Sea Route.

## **5.7 PROGRESS MADE UNDER NEW COAL DISTRIBUTION POLICY**

5.7.1 Prior to introduction of New Coal Distribution Policy in October, 2007, the consumers were broadly classified in two categories viz Core and Non Core Sector. The basis for earlier classifying consumers was solely based on their role in economic development. However, the erstwhile classification of the consumers under New coal Distribution Policy has been dispensed with. This policy was formulated in view of the direction of the Apex Court and came in force w.e.f. 18.10.2007

5.7.2 Under this Policy each sector/consumers have been treated on merit, keeping in view the regulatory provisions applicable thereto.

5.7.3 Earlier Standing Linkage Committee (Long Term), inter alia, granted long-term coal linkage to power utilities, IPP, CPP and Cement units with firm commitment of the coal quality and the identified sources of coal supplies. However, it was observed that many of the power projects, which were granted long-term coal linkage, did not come up as planned resulting in preemption of coal linkage. Therefore, under New Coal distribution Policy it was decided to introduce the concept of “Letter of Assurance” (LoA), which provides for assured supply of coal to developers, provided they meet stipulated milestones. Once the milestones as stipulated in the LoA are met by the developers, LoA holders would be entitled to enter into Fuel Supply Agreements (FSAs) for long-term supply of coal.

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- Linkage system has been replaced with Fuel Supply Agreement (FSA) and accordingly out of 1216 existing valid linked consumers, 1182 consumers have already executed FSA with the coal companies in categories other than Power Utilities. Sector-wise position of FSA under NCDP as on 30.12.09 is as under:-

Category	No. Of linked consumers	No. of FSA signed
	(old consumers)	
CPP	142	141
Sponge Iron	246	240
Cement	46	46
Paper	45	45
Aluminium	4	3
Briquette	64	64
SSF	82	82
Cokeries	148	147
Others*	439	414
Total CIL	1216	1182

\*\* others exclude power utility

- Out of 134 FSAs to be executed with existing power stns, 101 FSAs have been executed.

## 5.8 DISTRIBUTION OF COAL TO SMALL & MEDIUM CONSUMERS

5.8.1 The New Coal Distribution Policy also specifically addresses the issue of supply of coal of consumers in small and medium sector since the classification of the consumers as core and non core sector has been dispensed with under the New Coal Distribution Policy.

5.8.2 Under this policy, the State Governments are required to work out genuine requirement of such units in small and medium sector like Smokeless fuel, brick

kiln, coke oven units etc. in a transparent and scientific way and distribute coal to them accordingly. The State Government are to take appropriate steps to evaluate the genuine consumption and monitor use of coal. The cap has also been enhanced to 4200 tonnes per annum from 500 tonnes for the targeted consumers under this category. In order to meet the enhanced cap fixed for such consumers, the quantity earmarked for distribution by State the nominated agencies has been kept at 8 million tones annually to start with. This quantity would be allocated for distribution to those units/consumers in small and medium sector across the country whose requirement is less than 4200 tonnes per annum and are otherwise not having any access to purchase coal or conclude Fuel supply Agreement (FSA) for coal supply with coal companies.

5.8.3 The earmarked quantity would be distributed through agencies notified by the State Governments. These agencies coal be State Govt. Agencies/Central Govt. Agencies (National Co-operative consumers Federation (NCCF)/National Small Industries Corporation (NSIC) etc) or industries associations, as the State Govt. may deem appropriate. The agency so notified will continue to distribute coal until the State Govt. decide to denotify it.

5.8.4 The FSA would be based on firm commitment and compensation for default in performance on either side. The State Government/Central Govt. agencies would be free to devise their own distribution mechanism. However, the said mechanism should inspire public confidence and should result in distribution of coal in a transparent manner.

5.8.5 The price charged to such agencies would be the notified price as applicable to other consumers entering into FSA. The agency would be entitled to charge actual freight and upto 5% margin as service charge, over and above the basic price charged by the coal company, from their consumers.

5.8.6 CIL has informed that so far 22 States/Union Territories have nominated their agencies during the year 2009-10 for distribution of coal to the small scale industries and all the States have already started drawing coal under FSA. So far 31 State agencies have been nominated by the States, of which 30 state agencies have executed FSA for a quantity of 4.13 million tones against the allocation of 5.95 Million Tonnes. 5 States/Union Territories have intimated that the coal requirement for small consumers is not significant and therefore, they do not require coal under the above dispensation. 5 States are in the process of execution of FSA.

## **5.9 E-AUCTION OF COAL**

New Coal Distribution Policy (NCDP) issued by Ministry of Coal on 18.10.07 paved the way for launching of a fresh scheme for sale of coal through E-auction. E-Auction are of two types-Spot E-Auction and Forward E-Auction. Spot E-Auction is almost similar to the old E-Auction scheme introduced earlier prior to NCDP, where an intending buyer can participate in auction. In case of Forward E-Auction, only end-users/actual consumers are eligible to participate and have assured supply over a long period of one year. Each forward E-Auction shall be

for a period of 12 months consisting of 4 following quarters of 3 months each. Consumers will have the flexibility to be for any one quarter or for up to all the four quarters in one go. Bidders/Consumers are to make bid at or above the research price. While Spot E-Auction has been in operation since November 2007, forward E-Auction has commenced only from August 2009. Around 10% of estimated annual production of CIL would be offered under E-Auction.

## **5.10 IMPORT OF COAL**

5.10.1 As per the present Import policy, coal can be freely imported (Under Open General License) by the consumers themselves considering their needs based on their commercial prudence.

5.10.2 Coking coal is being imported by Steel Authority of India Limited (SAIL) and other Steel manufacturing units mainly to bridge the gap between the requirements and indigenous availability and to improve the quality. Coast based power plants, cement plants, captive power plants, sponge iron plants, industrial consumers and coal traders are importing non-coking coal specially low ash non coking coal. Coke is imported mainly by Pig-Iron manufacturers and Iron & Steel sector consumers using mini-blast furnace.

## **5.11 COAL CONSUMERS COUNCILS**

For redressal of consumer's grievances and monitoring of complaints received from the consumers, one Regional Coal Consumers Council has been set up for each coal company. An Apex body viz. National Coal Consumers Council has also been set up at the Headquarters of coal India Limited. In case the complainant does not receive a reply within a month or the complainant is not satisfied with the reply of Coal Company, he may prefer a complaint to the National Coal Consumers Council. These Councils have been reconstituted during the year 2009-10 with the introduction of many new members. The meetings of these councils are also being held regularly. Apart from NCCC and RCCC, CIL has also introduced on line grievance mechanism which will give access to all buyers for lodging complaints/grievance through CIL's website. Guidelines for lodging complaints, Forms for submission of Complaints, status report of grievance etc have already been placed in CIL website so that consumers can avail such mechanism.

# **CHAPTER-6**

## **COAL CONSERVATION, UTILISATION AND RESEARCH & DEVELOPMENT**

### **6.1 COAL CONSERVATION**

6.1.1 Conservation of Coal is an important area particularly when our coal reserves are finite. The aspect of conservation of coal is taken into account right from the planning stage and maximum recovery is ensured during the implementation stage. Mines are designed to work the coal seams either through opencast or through underground methods depending on the technical feasibility and economic viability.

6.1.2 Mechanised opencast (OC) mining is presently the commonly adapted technology for extraction of thick seams at shallow depth. This is also important from the conservation point of view since the percentage recovery by this technology is around 80% to 90%. Presently, this technology dominates the coal industry contributing more than 87% of country's coal production. Further, whenever it is feasible, the pillars of developed underground mines are being extracted through opencast operations.

6.1.3 In case of underground (UG) mining, the introduction of mechanised technologies like the long wall method, short wall method, blasting gallery technology and continuous miner technology have resulted in increased percentage of extraction.

6.1.4 With the improvement in roof support technology with mechanized bolting with resin capsules, it has been possible to maintain wider gallery span and extract seams under bad roof conditions more efficiently resulting in improved conservation of coal.

6.1.5 Ministry of Coal (MoC) governs the Coal Mines (Conservation & Development) Act, 1974 for conservation of coal and development of mine areas through Coal Controller Organisation. A stowing excise duty of Rs. 10/- per tonne is collected on coal production/despatch and coal companies are extended assistance for undertaking conservation measures.

### **6.2 SAND STOWING**

Sand stowing in underground mines is yet another effective means of coal conservation, which is widely in use for extraction of coal pillars from underground coal seams lying below built-up areas, such as important surface structures, railway lines, rivers, nallahs, jores, etc. which otherwise would have resulted in locking of coal in pillars. Stowing also help in the extraction of thick

seams in several lifts increasing the percentage of extraction. Due to scarcity of sand, various experimental trails are being conducted to use other materials like fly ash, boiler ash, crushed overburden material etc. for stowing in underground mines as a substitute for sand.

### **6.3 RESEARCH & DEVELOPMENT**

6.3.1 The Govt. of India initiated Coal S&T Grant in 1975 under Ministry of Coal (MoC) to enable research and development activities over a wide spectrum of areas viz. (i) Production, Productivity and Safety (ii) Coal Beneficiation and Utilisation and (iii) Environment and Ecology in Coal & lignite sector. The grant is administered by Standing Scientific Research Committee (SSRC) with Secretary (Coal) as its Chairman.

6.3.2 Central Mine Planning and Design Institute Ltd. (CMPD) is the nodal agency for coordination and monitoring of coal S&T Projects funded by the Ministry of Coal. These projects have been carried out by various research and academic institutes related to coal and allied industries with active participation of coal and lignite mining companies.

### **6.4 CONTROL OF MINE FIRE AND SUBSIDENCE**

6.4.1 The occurrence of fire and subsidence in old mined out areas of Jharia coalfield of Jharkhand and Raniganj coalfield of West Bengal are caused due to 200 years old unscientific mining carried out by the erstwhile mine owners. The problems are being addressed by the government and coal companies continuously. The population of the old mining areas has increased many times over the year though these areas have become unsafe for habitation. The problems of fire and subsidence in these coalfields have received attention from all concerned and from time to time various committees have been formed in the past to suggest measures against fire and subsidence.

6.4.2 Based on the report of the High Level Committee, a Master Plan dealing with fire, subsidence, rehabilitation and diversion of surface infrastructure in Jharia and Raniganj coalfields within the leasehold of Bharat Coking Coal Limited (BCCL) and Eastern Coalfields Limited (ECL) at an estimated investment of Rs. 9657.61 crore (Rs. 7028.40 crore for Jharia coalfield and Rs. 2629.21 Crore for Raniganj Coalfield) Excluding Rs. 116.23 crore sanctioned earlier for various Environmental Measures & Subsidence Control (EMSC) Schemes has been approved by the Government in August 2009 for implementation in 10 years period and in case of BCCL additional two years for pre-implementation activities. Implementation of the Master Plan is being monitored by a High Powered Central (HPC) Committee under the Chairmanship of Secretary (Coal).

# **CHAPTER-7**

## **SAFETY IN COAL MINES**

7.1 Safety is of paramount importance and Government accords top priority to the safety related issues in mines. Coal mining operations are governed under Coal (mining operations) Act, 1902. Rules & Regulations there under in regard to safety and health of persons employed in Mines. Directorate General of Mines Safety (DGMS) organisation under Ministry of Labour & Employment is the regulatory authority to ensure compliance of safety provisions by mine owners. Coal PSUs are totally committed to improve the safety standards of the mines both by following the statutory provisions as well as through self regulation approach. A number of initiatives have been taken by the coal companies in this regard and the same are listed below:

- Established internal safety organisations with workers representatives.
- Adopted risk assessment and management approach to assess the potential hazard and take the mitigative measures to make the operations safe.
- Conducting safety audit of the mines in a company by an independent safety auditor.
- Various steps for prevention of disasters arising out of inundation: fires; explosions etc. in mines.
- Strata management control to avoid accidents due to roof and side falls in mines, continuous monitoring of roof movement, adopting roof bolting systems, conducting R&D
- Improving emergency response systems etc. through mine-wise emergency action plans, conducting mock rehearsals, conducting rescue rehearsals etc.
- In case of open cast mines measures are being taken on continuous basis for reducing the accidents due to truck movement, imparting training to all the concerned, developing code of practices for HEMM operators, maintenance staff etc.
- Monitoring the status of safety in mines through involvement of workmen inspector conducting the meetings of Pit Safety Committees, Area Level Tripartite Committees, Company Level Tripartite Committees, CIL Safety Board, Standing Committee on Safety in coalmines under the chairmanship of Minister for coal, National Level Safety Conferences and through different Parliamentary Standing Committees.

### **7.2 JHARIA & RANIGANJ MASTER PLAN**

7.2.1 The problems of subsidence and fires are the result of unscientific mining carried out by the erstwhile mine owners over more than 200 years of operations in these coalfields of Jharia and Raniganj prior to Nationalisation. The populations living in the old mining areas has increased many times over the

years, though these areas became unsafe for habitation. In spite of the declaration of these areas unsafe the local administration, the habitation increased unabated. The problem of subsidence and fire are being addressed by the Government from time to time. In this regard a High Level Committee was set up in December, 1996 under the Chairmanship of the then Secretary, Ministry of Coal with representatives from other Departments, Coal companies and the concerned State Governments to deal with the problem in a comprehensive manner. Based on the recommendations of the Committee a Master Plan was prepared to deal with the problems of fire and subsidence and related rehabilitations covering the areas under Bharat Coking Coal Ltd. (BCCL) and Eastern Coalfields Ltd. (ECL) in 1999 for implementation of the same in a phased manner.

### **7.3 SAFETY MEASURES/INITIATIVES**

7.3.1 Apart from complying with the statutory provisions as laid down in the Mines Act, 1952 and the Regulations, Rules and Bye-Laws framed there under, Coal PSUs have taken several measures to improve standard of safety in its mines. Some of the initiatives taken in this regard are given below:

- CIL has established a structured multidisciplinary Internal Safety Organization (ISO) to assist the line management at various levels in matters related to Safety.
- CIL has introduced Risk Assessment based Safety Management Plan for its mines.
- Safety Audit by independent safety auditors.
- Steps for Disaster Prevention:
  - Inundation: Thrust on Safety Audit, Check Survey, Trials of Geo-physical Methods for detection of water bodies/proving parting, adequate preparation before monsoon season etc.
  - Fire in mines: Panel system working (so that in case of fire that can be isolated immediately), strengthening of isolation stoppings and use of fire retardant sealant etc.
  - Explosion: Early Gas detection through various modern gadgets (both sensors & catalytic base). Continuous type computer based on-line Gas monitoring for highly gassy and fiery mines and erection of explosion proof stopping.

#### **7.3.2 Emergency Response Systems**

- Emergency Action Plans (EPA) of each mine are being reviewed from time to time and corrective action taken.
- Mock Rehearsals: CIL has introduced a system of conducting Mock Rehearsals for examining the efficacy of Mine-wise Emergency Action Plan.
- Demarcating Escape Routes: An exercise for demarcating Escape Routes in underground mines, on plans as well as belowground by fluorescent paints, display of the same at the entry to the mine has been done.

- State of the art Rescue Apparatus like BG-4 Self Contained Breathing Apparatus was introduced in Rescue Stations and Rescue Personnel were trained for their use.

7.3.3 For reduction of Roof/Side falls accident Roof/Side fall accident is still one of the major causes of fatal accident in underground mines. CIL has given priority for ensuring roof support management through:

- Stress on face mechanization to reduce exposure of workmen in active working zone.
- Geo-mechanical properties of overlying rocks are being studied and Support System are being scientifically designed on the basis of Rock-Mass-Rating (RMR) of overlying strata and duly approved by DGMS.
- Greater use of Roof Bolting/Stitching methods of roof support
- Introduction of mechanized drilling by roof bolting machines.
- Emphasis on development of indicators for detecting impending load on roof through R&D.

7.3.4 For reduction of accident in Opencast as well as on Surface of Mines:

The following measures are being taken for reduction of fatalities in Opencast Mines & on Surface:

- Mine-specific Traffic Rule.
- Code of Practices for HEMM operators, Maintenance staffs & others
- Standard of Procedure related to safe operation of various mining operation.
- Risk Assessment & Management
- Training of Contractor's Workers involved in transporting

7.3.5 Monitoring the status of safety through the following agencies:

- Workmen's Inspectors
- Safety Committee at mine level
- Area Level Tripartite Committees
- Tripartite Safety Committee
- CIL Safety Board
- Standing Committee on Safety in Coal Mines
- Conferences on Safety in Mines
- Different Parliamentary Standing Committee

# **CHAPTER-8**

## **PUBLIC SECTOR UNDERTAKINGS IN COAL SECTOR**

### **8.1 HISTORICAL DEVELOPMENT OF COAL INDIA LIMITED AND ITS SUBSIDIARY COMPANIES**

8.1.1 The Coking Coal Mines (Emergency Provisions) Ordinance was promulgated by the Government of India on 16.10.1971 under which except the captive mines of TISCO and IISCO, the management of all coking coal mines was taken over by the Government. A new company called the Bharat Coking Coal Limited was formed as a subsidiary company of the Steel Authority of India Limited to manage the taken over mines. These mines were subsequently nationalized w.e.f. 01.05.1972. Later on, the management of 711 coal mines was also taken over by the Government with effect from 31.01.1973 and they were nationalized w.e.f. 01.05.1973 and a new Government Company, namely, the Coal Mines Authority Limited (CMAL) with headquarters in Kolkata, was set up by the Government in May, 1973 to manage the non-coking coal mines. CMAL was organized as a unitary structure on divisional pattern with four Divisions, the Central Division, the Eastern Divisions, the Western Divisions and the CMPDIL. The mines of erstwhile National Coal Development Corporation were brought under the Central Divisions of CMAL. In September, 1975, CIL was formed as a Holding Company with five subsidiaries, namely, Bharat Coking Coal Limited (CCL), Eastern Coalfields Limited (ECL), Western Coalfields Limited (WCL) and Central Mine Planning and Design Institute Limited (CMPDIL).

8.1.2 In view of the projected increase in production and investment contemplated for CCL and WCL group of coal mines and in view of their extensive geographical spread resulting in day to day administrative, technical and communication problems etc. two more coal companies, namely, Northern Coalfields Limited and South Eastern Coalfields Limited were formed w.e.f. 28.11.1985

8.1.3 Considering the prospects of Orissa Coalfields, being the growth centre for the VIII and IX Plan periods, a new coal company was formed bifurcating the South Eastern Coalfields Limited (SECL). The new company, the Mahanadi Coalfields Limited was incorporated on 3<sup>rd</sup> April, 1992 with its headquarters at Sambalpur (Orissa) as fully owned subsidiary of Coal India Limited to manage the Talcher and IB-Valley Coalfields in Orissa.

8.1.4 Coal India Ltd. (CIL) has now 8 subsidiaries viz. Bharat Coking Coal Limited (BCCL), Central Coalfields Limited (CCL), Eastern Coalfields Limited (ECL), Western coalfields Limited (WCL), South Eastern Coalfields Limited

(SECL), Northern Coalfields Limited (NCL), Mahanadi Coalfields Limited (MCL) and Central Mine Planning and Design Institute Limited (CMPDIL). CMPDIL is an engineering, design and exploration company set up for preparing perspective plan(s), rendering consultancy services and undertaking exploration and drilling work to establish coal reserves in the country and collection of detailed data for preparation of projects for actual mining. The other seven subsidiaries of CIL are coal producing companies.

8.1.5 CIL and its subsidiaries are incorporated under the companies Act, 1956 and are wholly owned by the Central Government. The coal mines in Assam and its neighbouring areas are controlled directly by CIL under the unit North Eastern Coalfields.

## **8.2 Coal India Limited (HQ)**

8.2.1 CIL is mainly responsible for laying down corporate objectives, approving and monitoring performance of subsidiary companies in the fields of long-term planning, conservation, research and development, production, sales, finances, recruitment, training, safety, industrial relations, wages, material for all operational matters, commissioning and execution of new as well as on-going projects, man management, production consumer satisfaction etc. In addition, subsidiary companies perform related functions, such as maintaining liaison with concerned State Governments, acquisition of land, execution of welfare programmes, maintenance of safety standards, improvement of industrial relation etc.

8.2.2 In addition to the above function, CIL has directly under its control the development and exploitation of the coal mines in the North-Eastern States, and the coal marketing network spread throughout the country.

## **8.3 Coal Videsh Division (CIL)**

- a. CIL's initiatives for acquiring coal mines abroad is being pursued through two modes: - through internal "Coal Videsh Division" and a participation with its Joint Venture Company "International Coal Ventures (ICV)".
- b. In view of the initiatives taken by CIL during the year, the CIL has emerged as the successful bidder in the global tender process run by Govt. of Mozambique, for allocation of prospecting licenses for coal concessions in Mozambique. CIL has been awarded prospecting license for two coal concessions in Mozambique. CIL will shortly undertake the activities of exploration and formation of a company in Mozambique.

## **8.4 Workers Participation in Management**

In CIL subsidiaries there are well established bi-partite fora consisting of the representatives of the Management and the 5 Central Trade Unions for interaction and redressal of issues related to the wages & service conditions,

employment, safety, grievances, welfare etc. related matters. The following joint bipartite fora are operating at different levels: -

1. JBCCI at CIL
2. Apex Jt. Consultative Committee
3. Safety Board/Safety Committee
4. Welfare Board /Welfare Committee
5. Joint Consultative Committees
6. Industrial Relation Meetings (Structural meetings with Union).

## **8.5 Employees Welfare Scheme**

The focus of our Welfare Activities is the welfare of our employees and their families. The coal companies are paying greater attention to the welfare of their workers. Every effort is being made to improve the living conditions of the coal miners. In order to create a sense of belonging and involvement in work, top priority is given by the management of provide housing, medical, educational facilities etc. The results of the welfare measures taken in different areas are as under: -

## **8.6 Housing**

At the time of Nationalisation, in Coal India Limited and its subsidiaries there were only 1,18,366 houses including sub-standard houses. The availability of these houses has increased to 4,21,266 (up to 31.12.2009). The percentage of housing satisfaction has now reached 100%.

## **8.7 Water Supply**

Coal India Ltd. & its subsidiaries as against 2.27 Lakhs population having access to potable water at the time of Nationalisation in 1973, presently a populace of 22.9 Lakhs (up to 31.12.2009) has been covered under water supply scheme.

## **8.8 Medical Facilities**

Coal India Ltd and its subsidiaries are extending medical facilities to its employees and their families through various medical establishments from the Dispensary level to the Central and Apex Hospitals in different parts of the coalfields.

There are 85 Hospitals with 5,835 Beds, 424 Dispensaries, 659 Ambulance and 1572 Doctors including Specialists in CIL and its subsidiaries to provide medical services to the employees. Besides 12 Ayurvedic Dispensaries are also being run in the subsidiaries of Coal India Limited to provide indigenous system of treatment to workers.

## **8.9 Educational Facilities**

The primary responsibility of providing educational facilities lies with the State Governments. However, the subsidiary companies of CIL have been providing financial assistance and infrastructure facilities to certain schools like DAV Public Schools, Kendriya Vidyalaya, Delhi Public School etc and also providing occasional financial assistance to other recognized educational institutions.

In addition, as a part of Corporate Social Responsibility (CSR) financial assistance by way of grant-in-aid/Infrastructural facilities are also provided to certain privately managed schools by the subsidiary coal companies functioning in an around coalfield areas.

## **8.10 Statutory Welfare Measure:**

In accordance with the provision of the Mines Act 1952 and Rules and Regulations framed there-under, subsidiaries of Coal India Limited are maintaining various statutory welfare facilities for the coal miners such as Canteen, Rest Shelters and Pit Head Baths etc.

## **8.11 Non-statutory Welfare Measures:**

### **Co-operative Stores and Credit Societies:**

In order to supply essential commodities and Consumer goods at a cheaper rate in the Collieries Central Co-operative and Primary Co-operative Stores are functioning in the Coalfield areas of CIL. In addition, Co-operative Credit Societies are also functioning in the Coal Companies.

## **8.12 Banking Facilities**

The Management of Coal Companies are providing infrastructure facilities to the various Nationalised Banks for opening their Branches and Extension Counters in the Coalfields for the benefit of their workers. Workers are educated to draw their salaries through 484 Number of Bank/Extension Counters and they are also encouraged to practice thrift for the benefit of their families.

## **8.13 Resettlement & Rehabilitation (R & R) Policy of Coal India Ltd.**

Coal India's R & R Policy was first formulated in 1994 and has been in operation with modifications from time to time. The R & R Policy, in vogue since 2000, has been further modified in May, 2008, in consonance with the National Rehabilitation and Resettlement Policy, 2007 (NRRP) notified by the Ministry of Rural Development, Govt. of India.

#### **8.14 Land Acquisition and R & R policy Neyveli Lignite Corporation Limited**

Neyveli Lignite Corporation Limited (NLC) has been engaged in open-cast-mining of Lignite in Neyveli Area, for five decades mainly for producing electricity in its pit-head power stations. The land required for its projects are acquired from time to time in a phased manner and also in contiguous stretches abutting the existing mines/power stations. The related Resettlement and Rehabilitation (R&R) Policy has also been formulated based on the experience over time.

In acceptance of its social responsibility, NLC had been offering jobs to the land affected to the extent possible, apart from resettling them in the well-developed Resettlement Centres (RCs). Further, a Corporate Resettlement and Rehabilitation Policy (RAP) has also been framed and is being implemented for the benefit of the various sections of the Project Affected Persons (PAPs) who have given lands from 01.07.1989 onwards. The Displaced persons are being resettled smoothly as per the provisions of the RAP in the NLC Resettlement Centres.

The implementation of this RAP has since been discontinued and has been substituted with the National Rehabilitation and Resettlement Policy, 2007 (NRRP2007) published on 31.10.07 by the Government of India, Ministry of Rural Development and as directed by Government of Tamil Nadu.

#### **8.15 NEYVELI LIGNITE CORPORATION LIMITED**

NLC was registered as a company on 14<sup>th</sup> November 1956. The mining operations in Mine-I were formally inaugurated on 20<sup>th</sup> May 1957 by the Prime Minister Pandit Jawahar Lal Nehru. Neyveli Lignite Corporation has been conferred with “MINIRATNA” status.

NLC is now operating three lignite mines and three thermal power stations.

All the three mines and the power stations of NLC have already received ISO Certification for Quality Management System, Environmental Management System, and Occupational Health & Safety Management System.

#### **8.16 EMPLOYEES WELFARE**

Welfare measures under the following heads have been extended to the employees:

- 100% housing to employee;
- Subsidised canteen facilities and uniforms/footwear;
- Conveyance reimbursement;
- Merit scholarships to school students;
- Special scholarships to SC/ST students;

- Group Accident Insurance Schemes;
- Special increments for acquiring higher qualifications;
- Long service awards;
- Marriage and superannuating gifts;'
- Free medical treatment to employees and their dependents;
- Terminal payments including provident fund on the date of retirement;
- Post retirement medical benefit scheme;
- Death Relief Scheme.

### **8.17 Employees Welfare**

The SCCL is taking all possible measures to provide welfare amenities to its employees, particularly in the field of health, sanitation, residential accommodation, education of worker's children, supply of water, laying of roads, improving health awareness among employees and their families through communication cell, sports and games to provide recreation in addition to various Social Security Schemes.

SCCL has spent Rs. 46,824 per employee towards Welfare expenditure during 2008-09.

## **CHAPTER-9**

### **INTERNATIONAL COOPERATION**

#### **9.1 SAARC TECHNICAL SEMINAR ON COAL**

As per decision taken in the SAARC Energy Ministers meeting held on 7.3.2007 in India, Ministry of coal conducted a SAARC Technical Seminar on Coal on 16<sup>th</sup> October, 2007 in Kolkata on the strategies on promotion of coal development and clean coal technologies in SAARC region. Nine delegates from different SAARC member countries excepting Maldives Participated in the Seminar. The 4<sup>th</sup> meeting of the SAARC working Group on Energy was held in Islamabad during 26-27<sup>th</sup> March, 2008. The Working Group reviewed the status of implementation of various decisions taken earlier by SAARC Energy Ministers and the working group and the Energy Dialogue. The 5<sup>th</sup> meeting of the SAARC Working Group on Energy was held during 29-30 April, 2009 in Thimpu, Bhutan. As decided in the meeting, draft Terms of Reference (ToR) for coal for the Expert Group on Technology/knowledge sharing under the SAARC Working Group has been proposed by this Ministry.

#### **9.2 INTERNATIONAL CO-OPERATION WITH EUROPEAN UNION (EU)**

The India-EU Energy Panel was constituted as a follow up of a decision taken at the 5<sup>th</sup> India-EU Summit held in Hague in November, 2004. The first meeting of the Indo-EU Energy Panel was held in Brussels on 29<sup>th</sup> June, 2005 in which emerging energy scenario and future prospects for development of the fuel chains and key priorities for cooperation were discussed. The Panel decided to set up working groups in the following areas:

- Coal and clean coal conversion technologies
- Energy efficiency and renewable energies
- Fusion energy including India's participation in International Reactor (ITER) project.

As a follow up of the decision made by the Panel, the Working Group on Coal and Clean Coal Technologies was constituted in March, 2006. 1<sup>st</sup> meeting of the working group on Coal and Clean Coal Conversion Technologies was held on 22-3-2006 at New Delhi. Second meeting of the India EU Working Group on Coal and Clean Coal Technology was held on 28.11.2006 at Brussels, Belgium. Various areas discussed for cooperation were:

- i) Capacity creation in resource assessment of CBM/CMM/AMM
- ii) In-situ coal gasification
- iii) Coal beneficiation for coking and thermal coal.
- iv) Development of mining methods for steep and thick seam working.

The meeting of India-EU CWG to discuss Coal Conversion Technologies was held on 21.1.2008 in New Delhi, where power section has posed areas of

cooperation for improved efficiency in coal utilization for power generation. The 4<sup>th</sup> meeting of the Indo-EU CWG on clean coal technologies was held in Brussels during 17.6.2008. The areas identified for cooperation were Steep Seam mining, underground mine rescue. The 5<sup>th</sup> meeting of the Indo-EU Energy Panel Meeting was held in Brussels on 6.10.2009. The progress made by the working group on coal and cleans coal technologies and steps to improve the Indo-EU cooperation further were discussed.

## **CHAPTER-10**

# **PROGRESS ON IMPLEMENTATION OF INFORMATION TECHNOLOGY**

10.1 India is set to emerge as an ICT Superpower in this millennium. Realizing the recognition of 'electronic governance' as an important goal by Government, Ministry of Coal has also laid a lot of emphasis on anytime, anywhere delivery of Government services. Endeavour to adopt best practices and integrated delivery of information is the target of Ministry of Coal.

10.2 An IT based Computer Centre, set up by National Informatics Centre (NIC) is operational in the Ministry which is equipped with Servers, Client machines for providing Internet and NICNET facilities for local and global connectivity. NIC COAL CELL since over last two decades is delivery valuable key services in the Ministry namely technical ICT consultancy, software development, training & implementation, web services, networking, Internet & Email and database handling.

10.3 The Ministry has provided Windows based PCs to all officers, personal staff and sections. A high speed Local Area Network (LAN) is functioning in the Ministry. All PCs along with servers are put on LAN to provide interconnectivity, Internet facility and access of the applications from the server. The office of this Ministry situated in Lok Nayak Bhawan has also been provided LAN with Internet and Email facilities. Secretary Coal office has been equipped with NIC's IP based Video Conferencing System-EVCS.

10.4 Ministry of Coal has implemented Acc Vacancy Monitoring System to monitor the status of ACC level posts in the Ministry. Details are being fed in the web based package for timely intimation of vacant positions.

10.5 A vibrant Web Site of Ministry of Coal in English and Hindi is operational which has been designed, developed and hosted by NIC. It provides of organizational setup of the Ministry, its working, subordinate offices, policies, annual reports, publications, and statistical data/information on functional key parameters. The Web Site also contains all the important information in line with Right to Information Act, 2005.

Forms have been provided for downloading by the consumers/customer. Latest announcements, advertisements, quotation, Monthly Expenditure reports, Minutes of meetings of Screening Committee are placed on the website regularly. Data is also uploaded on government portals like policy portal. India portal and tenders portal. The Ministry has converted all relevant Acts/Rules/Notifications/Orders etc into electronic form and hosted on the web site for easy access and dissemination to public through the web site.

10.6 The Ministry has taken steps to implement IT in their day-to-day working. Senior officials of the Ministry have been provided with Appointments and Task Monitoring System. The system is used for on-line access of the appointments/engagements. Tour/Leave position of senior officers is now available online in the Ministry. The official correspondence is being done through E-mail to expedite actions.

10.7 The officials' diary and file movement activities have been automated using the office Procedure Automation Package (OPA) developed by NIC. This has streamlined file and receipt tracking in the Ministry and has become an effective monitoring tool for reducing pendencies at all levels.

Pendency Monitoring System on Categorized references like VIP, PMO, RTI, NHRC, Parliament Assurances and Audit Paras has been developed to streamline and monitor these references between Ministry and Coal Companies.

10.8 The Ministry has integrated various IT services, facilities and applications through an Intranet based Portal for Ministry of Coal- a single window having links to useful applications like: Coal notice board, incumbency MIS, VIP/MP reference monitoring, tour-leave details of officers, GPF details, Income Tax calculation, Pay slips generation, pending bills alerts, leaves details of employees, downloads and coal library.

Bi-lingual interface is provided to various applications to increase the use of Rajbhasha. Bi-lingual forms have been posted on Intracoal so that more Hindi forms are submitted.

10.9 Minister Office has been equipped with DO letter MIS to cater to queries regarding DO letters coming in Minister office.

10.10 Ministry has successfully migrated to NIC's prestigious Payroll Package-Comp DDO. Parallel run has begun to sort out implementation issues.

10.11 MIS for allotted Captive Coal Blocks has been developed to maintain detailed Coal Blocks database and to serve queries related to Allotted Captive Coal Blocks. This web based system is designed to monitor the detailed status of progress of allotted Captive Coal/Lignite Blocks of Coal Companies under Ministry of Coal to various parties in various states for various end uses.

10.12 Security is a key issue in this era of World Wide Web. Steps have been initiated to make all web based applications in the Ministry safe and secure from malicious attacks. Users are advised/informed to manage their computers/files in a secure way. Latest Antivirus support is made available. Sincere efforts are made to make /LAN/Antivirus/Computers related services available with minimum downtime.

10.13 Computer Centre organizes User Training Programmes time to time to keep the users well aware about the latest development in the field of IT such as Computer security, Unicode Hindi, OPA hands on, and Computer/Internet Basics.