CHAPTER-XII

SAFETY AND PUBLIC GRIEVANCE CELL

MEASURES TAKEN FOR IMPROVING SAFETY

12.1 In the year 2002 the following major safety measures were pursued for enhancement of safety in operations in Coal India Ltd.

i) Assessment of threats to safe operations of mines through Safety Audits conducted by external experts of mining, electrical and mechanical engineering disciplines and implementation of the recommendations of these Audits.

ii) Thrust was given on preparedness for emergencies through

- Drawing up Emergency Action Plans for each and every mine
- Demarcating Escape Routes from underground mines on plans as well as belowground.
- Conducting mock rehearsals of Emergency Action Plans.

iii) Assessment of water danger prior to monsoon in each mine and implementation of protective measures.

iv) Thrust on measures for avoiding roof fall accidents was continued, such as

- Determination of Rock-Mass-Rating (RMR) and drawing up and implementation of Support Plans based on RMR in development districts.
- Training of Support Personnel and Supervisors.
- Greater use of Roof Bolting / Roof Stitching methods of Support.

v) Measures to reduce accidents at opencast mines and at surface through

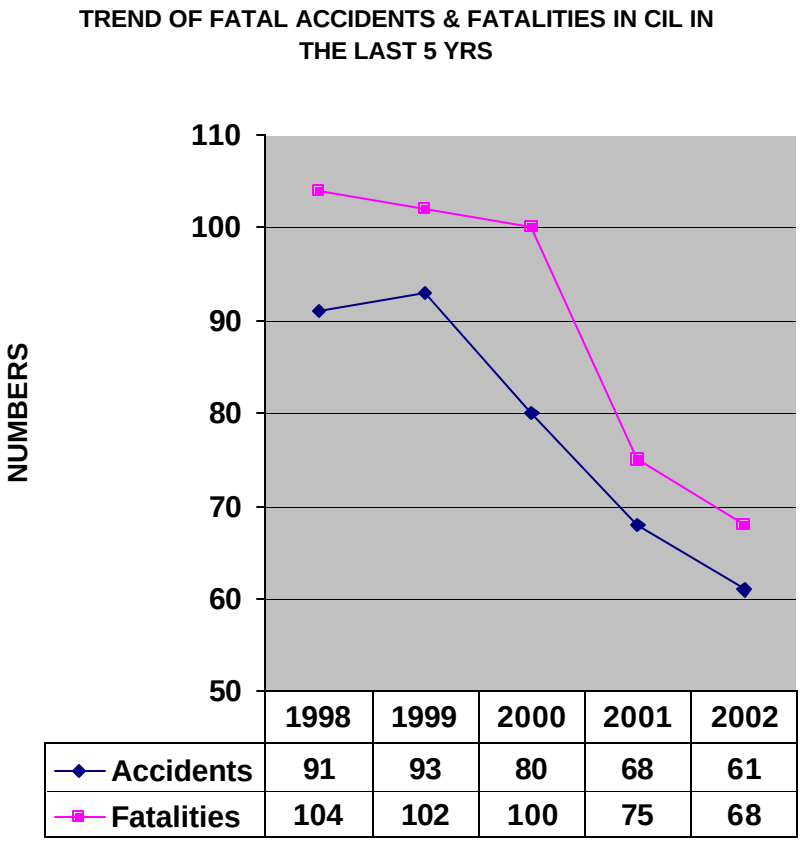
- Training of Heavy Earth Moving Machinery Operators and contractor's workers.
- Enhancement of safety awareness through publicity and propaganda, Safety Drives, Safety Committee meetings, etc.

vi) Reinforcing measures to avoid outbreaks of fires in underground mines by

- Rigorous monitoring of mine environment by handheld digital and other instruments.
- Checking and making accessible fire stoppings, sectionalisation of old workings.
- Examination of all winding installations and rectification of defects thereof.

12.2 In the year 2002 a major breakthrough has been achieved in the trend of fatal accidents and fatalities. Since 1998 fatal accidents and fatalities have shown a downward

trend and have reached the lowest ever in 2002. The trend of fatal accidents and fatalities in CIL in the last five years is shown in the graph below:



Note: Figures for 2001 is excluding 29 fatalities in Bagdigi disaster

12.3 Safety Statistics for Coal India Ltd. since 1975, at ten year intervals since formation of CIL and for 2002 are given in the Table - 1. Company-wise accident statistics for Coal India Ltd. for 2002 are given in the Table-2.

Table – 1 : Safety statistics for Coal India Ltd. since 1975 at 5 year intervals & for 2002

YEAR	FATAL ACCIDENTS		SERIOUS ACCIDENTS		FATALITY RATE		SERIOUS INJURY RATE	
	ACCI-DENTS	FATA-LITIES	ACCI-DENTS	INJURIES	PER M.TE.	PER 3 LAKH MANSHIFTS	PER M.TE.	PER 3 LAKH MANSHIFTS
1975	177	233	1456	1515	2.62	0.52	17.03	3.41
1980	112	129	1132	1202	1.35	0.28	12.54	2.65
1985	136	152	507	524	1.15	0.31	3.97	1.07
1990	121	135	590	633	0.75	0.28	3.53	1.32
1995	113	192	575	612	0.83	0.45	2.65	1.14
2000	80	100	498	523	0.37	0.25	1.93	1.32
002	61	68	375	397	0.24	0.19	1.37	1.09

Note : Figures for 2002 are provisional.

TABLE – 2 : COMPANY-WISE ACCIDENT STATISTICS FOR COAL INDIA LTD. FOR 2002

COMANY	FATAL ACCI-DENTS	FATA-LITIES	SERIOUS ACCI-DENTS	SERIOUS INJURIES	FATALITY RATE PER M.TE	FATALITY RATE PER 3 LAC MANSHIFTS	SERIOUS INJURY RATE PER M.TE	SERIOUS INJURY RATE PER 3 LAC MANSHIFTS
ECL	10	13	149	149	0.47	0.15	5.41	1.71
BCCL	9	10	49	61	0.42	0.15	2.56	0.89
CCL	9	9	16	18	0.25	0.19	0.49	0.37
NCL	1	1	10	10	0.02	0.07	0.23	0.74
WCL	15	15	53	54	0.40	0.26	1.42	0.93
SECL	13	16	81	88	0.24	0.23	1.31	1.25
MCL	4	4	17	17	0.08	0.26	0.33	1.12
NEC	0	0	0	0	0.00	0.00	0.00	0.00
CIL	**61**	**68**	**375**	**397**	**0.24**	**0.19**	**1.37**	**1.09**

Note : Figures for fatal accidents, fatalities, serious accidents, & injuries and associated rates are subject to reconciliation with DGMS.

MEASURES TAKEN FOR ENHANCEMENT OF SAFETY IN OPERATIONS IN SINGARENI COLLIERIES CO. LTD.

12.4 SCCL is taking the following safety measures to prevent accidents in its coal mines:-

UNDERGROUND MINES

- To reduce the risk at Potentially dangerous coal face, SDLs, LHDs and Continuous Miners are being introduced wherever possible to replace manual loading, thus reducing the concentration of the workmen at the active coal face.
- Adopt roof bolting in all the workings in large scale for support of workings including in the area of freshly exposed roof.
- Introduced Man-riding system in eight mines for travel of workmen in mines having lengthy and arduous travelling, thus reducing the tendency of workmen for set-riding.
- Establish travelling roadways with shortest possible route in intake airways with good lighting arrangements.
- Side bolting in the mines where the tendency for the side falls is more.
- Involving scientific institutions for development of suitable support system for the workings.
- Appeal to the Union leaders to counsel the workmen and their family for not resorting to set-riding by the employees in the mine.

OPEN CAST MINES

- Establish two way haul roads to prevent accidents of dumpers.
- Establish haul roads with mild gradient of around 1 in 16.
- Implementation of traffic rules.
- As far as possible, establish wider benches for smooth and safe operation of HEMM in excavation areas.
- Maintaining optimum bench height suitable to the shovels deployed and to the prevailing strata conditions.
- Introduced good lighting arrangements at working place, haul roads and dump yards, though involving high capital and operation cost.

- Workmen at critical places to wear uniforms and helmets with fluorescent bands for identification in the dark.
- Intensive and practical training of workers of off-loading contractors.
- Adequate provision in the contract of Off-Loading for compliance of safety rules and regulations as per statute.

GENERAL

- Safety Pledge by the workmen in the beginning of the shift.
- Safety dramas are being organized in mines and workers colony in all the areas to promote safety awareness amongst workmen and their family members.
- Corporate Safety Review Committee, Regional Safety Review Committee and Area Safety Audit Committee for all the areas have been formed to review the accidents and to take appropriate steps for improving safety.
- Special Safety Awareness Programmes are being conducted for coal cutters and supporting crew in every area.
- Safety statistics for Singareni Collieries Co. Ltd. during the years 2001 and 2002 are given in the Table -1,2,3 and 4.

Table-1. Area-wise fatal and serious accidents occurred in SCCL during the years 2001 & 2002

S. No	Area	Fatal				Serious			
		Accidents		Fatalities		Accidents		Serious Injuries	
		2001	2002	2001	2002	2001	2002*	2001	2002*
1	KGM	1	0	1	0	8	6	8	7
2	YLD	2	0	2	0	11	13	11	13
3	MNG	4	1	4	1	11	11	12	11
4	RG.I	4	3	4	4	12	9	13	9
5	RG.II	4	0	4	0	17	9	18	9
6	RG.III	0	0	0	0	8	5	8	5
7	RG.IV	2	0	2	0	2	8	2	8
8	BHPL	1	1	1	2	6	8	6	8
9	BPA	2	1	2	1	5	9	6	9
10	MM	1	2	1	7	7	21	8	22
11	RKP	4	3	4	3	7	6	8	6
12	SRP	0	3	0	5	11	10	15	11
	TOTAL	**25**	**14**	**25**	**23**	**105**	**115**	**115**	**118**

*Provisional

Table -2. Cause -wise fatal accidents in SCCL during the years 2001 and 2002

CAUSE	Fatal accidents			
	2001		2002	
	Accident	Fatality	Accident	Fatality
1.0 GROUND MOVEMENT				
1.1 Roof fall	7	7	6	14
1.2 Side fall	3	3	4	5
1.3 Others	0	0	0	0
2.0 Winding in Shafts	**0**	**0**	**0**	**0**

3.0 TRANSPORT MACHINERY				
3.1 Rope haulage	8	8	3	3
3.2 Conveyors	0	0	0	0
3.3 Wagons	0	0	0	0
3.4 HEMM Dumpers	2	2	0	0
3.5 Trucks (Jeep)	1	1	0	0
3.6 Others	0	0	0	0
4.0 OTHER MACHINERY				
4.1 CHPs	1	1	0	0
4.2 Other HEMM	0	0	0	0
4.3 Other Machinery	1	1	0	0
5.0 EXPLOSIVES	**1**	**1**	**0**	**0**
6.0 ELECTRICITY	**0**	**0**	**0**	**0**
7.0 Dust/Gas/Fire	0	0	0	0
8.0 FALLS				
8.1 Fall of person	1	1	1	1
8.2 Fall of object	0	0	0	0
8.3 Fall of coal	0	0	0	0
9.0 OTHER CAUSES	**0**	**0**	**0**	**0**
TOTAL	**25**	**25**	**14**	**23**

Table -3. Place-wise fatal accidents in SCCL during 2000-2002

Place	2001		2002	
	Accident	Fatality	Accident	Fatality
BELOW GROUND				
DEV.FACE	0	0	3	6
DEV.AREA	4	4	1	1
MACHINE MINING	2	2	0	0
DEP.AREA	7	7	6	12
TRAMMING ROADWAY	1	1	0	0
ROPE HAULAGE ROADWAY	7	7	3	3
OTHERS	0	0	0	0
OPEN CAST	3	3	0	0
ABOVE GROUND				
CSP	1	1	0	0
WSs/PHs	0	0	0	0
OTHER ENGINE ROOMS	0	0	0	0
OTHERS	0	0	1	1
TOTAL	25	25	14	23
BELOW GROUND	21	21	13	22
OPEN CAST	3	3	0	0
ABOVE GROUND	1	1	1	1

Table –4. Fatal accident rate in SCCL during the years 2001and 2002

YEAR	INJURY RATE PER		
	Million tonnes of production	3 lakh manshifts worked	1000 persons employed
	Fatal	Fatal	Fatal
2001	0.80	0.33	0.25
2002	0.68	*0.32	0.26

FATALITY RATES OF INDIA COMPARED TO SOME DEVELOPED COUNTRIES

Comparison of fatality rates with some developed countries indicates that though fatality rates per million tonne of production for India and CIL is not favourable, fatality rates per 1000 persons employed and per 3 lakh manshifts deployed is comparable with some developed countries like USA and Japan.

FATALITY RATE PER MILLION TONNE OF COAL PRODUCED

YEAR	AUSTRALIA	FRANCE	INDIA	CIL	JAPAN	USA	GERMANY
1995	0.02	0.12	0.50	0.50	0.32	0.05	0.26
1995*	0.02	0.12	0.77	0.83	0.32	0.10	0.26
1996	NA	0.37	0.48	0.44	0.00	0.04	0.25
1997	NA	0.15	0.54	0.43	0.47	0.03	0.19
1998	0.02	0.15	0.47	0.40	0.47	0.03	0.19
1999	0.02	0.00	0.45	0.40	N.A.	0.03	NA
2000	N.A.	0.29	0.46	0.37	N.A.	N.A.	N.A.
2001	N.A.	N.A.	N.A.	0.37	N.A.	N.A.	N.A.
2002	N.A.	N.A.	N.A.	0.24	N.A.	N.A.	N.A.

***** Indicates rates for India & CIL inclusive of fatalities in disaser.

FATALITY RATE PER 1000 PERSONS EMPLOYED

YEAR	AUSTRALIA	FRANCE	INDIA	CIL	JAPAN	USA	GERMANY
1995	0.15	0.07	0.28	0.26	0.41	0.36	0.15
1995*	0.15	0.07	0.43	0.46	0.41	0.36	0.15
1996	NA	0.23	0.26	0.27	0.00	0.31	0.14
1997	NA	0.08	0.33	0.28	0.65	0.24	0.11
1998	0.18	0.08	0.30	0.24	0.06	0.25	0.11
1999	0.29	0.00	0.29	0.27	NA	0.30	NA
2000	N.A.	0.13	0.30	0.25	N.A.	N.A.	N.A
2001	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
2002	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

FATALITY RATE PER 3 LAKH MANSHIFTS

YEAR	AUSTRALIA	FRANCE	INDIA	CIL	JAPAN	USA	GERMANY
1995	0.17	0.16	0.27	0.27	0.42	0.48	0.33
1995*	0.17	0.16	0.42	0.45	0.42	0.48	0.33
1996	0.39	0.51	0.28	0.24	0.00	0.41	0.32
1997	0.24	0.20	0.31	0.25	0.63	0.31	0.25
1998	0.39	NA	0.29	0.24	NA	NA	NA
1999	0.31	0.00	0.27	0.25	NA	0.40	NA
2000	N.A.	0.29	0.46	0.37	N.A.	N.A.	N.A
2001	N.A.	N.A.	N.A.	0.27	N.A.	N.A.	N.A.
2002	N.A.	N.A.	N.A.	0.19	N.A.	N.A.	N.A.

12.5 PUBLIC GRIEVANCES REDRESSAL MACHINERY (PGRM) IN MINISTRY OF COAL

A Standard Public Grievance and Staff Grievance procedure is in existence in the Ministry of Coal. Coal India Limited with its nine subsidiaries is also working under the administrative control of this Department. We have been informed that a staff and public grievances redress procedure exists in the coal companies.

Shri Sanjay Bahadur, Deputy Secretary, in Ministry of Coal has been designated as Director (PG). Wednesday is left to the extent possible as a meeting-less day so that petitioners can meet the officer freely. Reception Officer at Shastri Bhavan has been instructed to allow visitors to meet the Officers on Wednesday without prior appointment.

All Organizations working under the administrative control of this department have been advised to observe every Wednesday as "fewer meetings day" with a view to attend to public grievances. All Officers of the level of Deputy Secretary and above have been advised to accommodate issues relating to grievances for three hours from 10.AM to 1.00 PM. CIL has been instructed to pick up grievances appearing in the newspaper's columns, which are related to them and take remedial action in a time bound manner. The name and address of the PG officer has been displayed permanently at the Reception Counter of the Department. A complaint box has already been installed at the reception counter at Shastri Bhavan. In the Department of Coal, PG Cell entertains all the grievance petitions received from public or employees of Coal Companies. Decision on each grievance is taken at senior level and a reasoned reply is sent to the complainant in case of rejection also. Field units have been advised to identify the grievance prone area and sort out the grievances.

This Ministry has set up a facilitation centre near the reception counter at Shastri Bhavan, New Delhi, to help the general public and other citizens.

The main areas of recurring grievances are non-settlement of post retirement benefits such as PF, Pension, gratuity, leave encashment and medical benefits in respect of Officers of CIL and its subsidiaries.

During 2002-2003 (up to December, 2002), PG Cell had received about 760 pension related PG references. Out of these 705 cases have been attended to and disposed of and only 55 cases are in hand. We have been informed that in Coal India Limited about 350 cases had been received up to December, 2002. Out of these, 348 cases have been attended to and only 2 are pending.

Grievance Redressal Machinery is also functioning in Neyveli Lignite Corporation Ltd. About 275 PG petitions were received up to December, 2002. Out of these 260 cases have been attended to and only 15 cases are pending.

The grievances of individual workmen are promptly attended to promptly under Grievance Procedure. In SCCL, there are 3 (three) stages for a workman to represent his grievance. In the first stage, the aggrieved workman shall present his grievance in person to Mine /Department level and such grievance will be examined and a reply will be given within 10 days by the Manager/ Head of the Department. Subsequently, he may submit his grievance to the area level Grievance Committee consisting of representatives from

management and unions. The Committee shall examine the grievance and communicate the decision to the concerned workman within 10 days from the receipt of representation by the Committee.

In the third Stage, if the workman is not satisfied with the reply given by the Grievance Committee, he can represent the matter to the Appellate Authority (Director P.A & W, Corporate level) and as such grievance will be examined by the Corporate Office and a reply will be given to the party within 15 days. The above procedure has been working satisfactorily in the Company.

The consistent policy followed by the management in dealing with Recognized and Representative Status Unions of the Area, vis-a-vis un-recognized unions, after holding elections, in terms of code of discipline and Industrial Relations Policy of the Management, has led to better Industrial Relations.

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