

**PRESENTATION ON**

**“ STATUTORY REQUIREMENTS AND  
COMPLIANCES ON MINE SAFETY  
FOR CONTRACTOR WORKERS”**

**by**

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 Welcome!



# OVERVIEW OF MINING IN INDIA

# Overview of mining in India

## MINERALS MINED IN INDIA

- **89** minerals in total
- Contribute **2.5-2.8 % GDP** of India
- No of Mines- Coal-605, Oil & Gas-88, Metal-9600
- Estimated Employment- about **1(one) million**
- Bellow ground employment **1.8 lakh**
- Contractual employment **98.6 thousand**

TRENDS OF OUTPUT,  
ACCIDENT SCENARIO and  
CONTRACTUAL FATALITY  
RATE

# Trend of Output in Indian Coal Mines

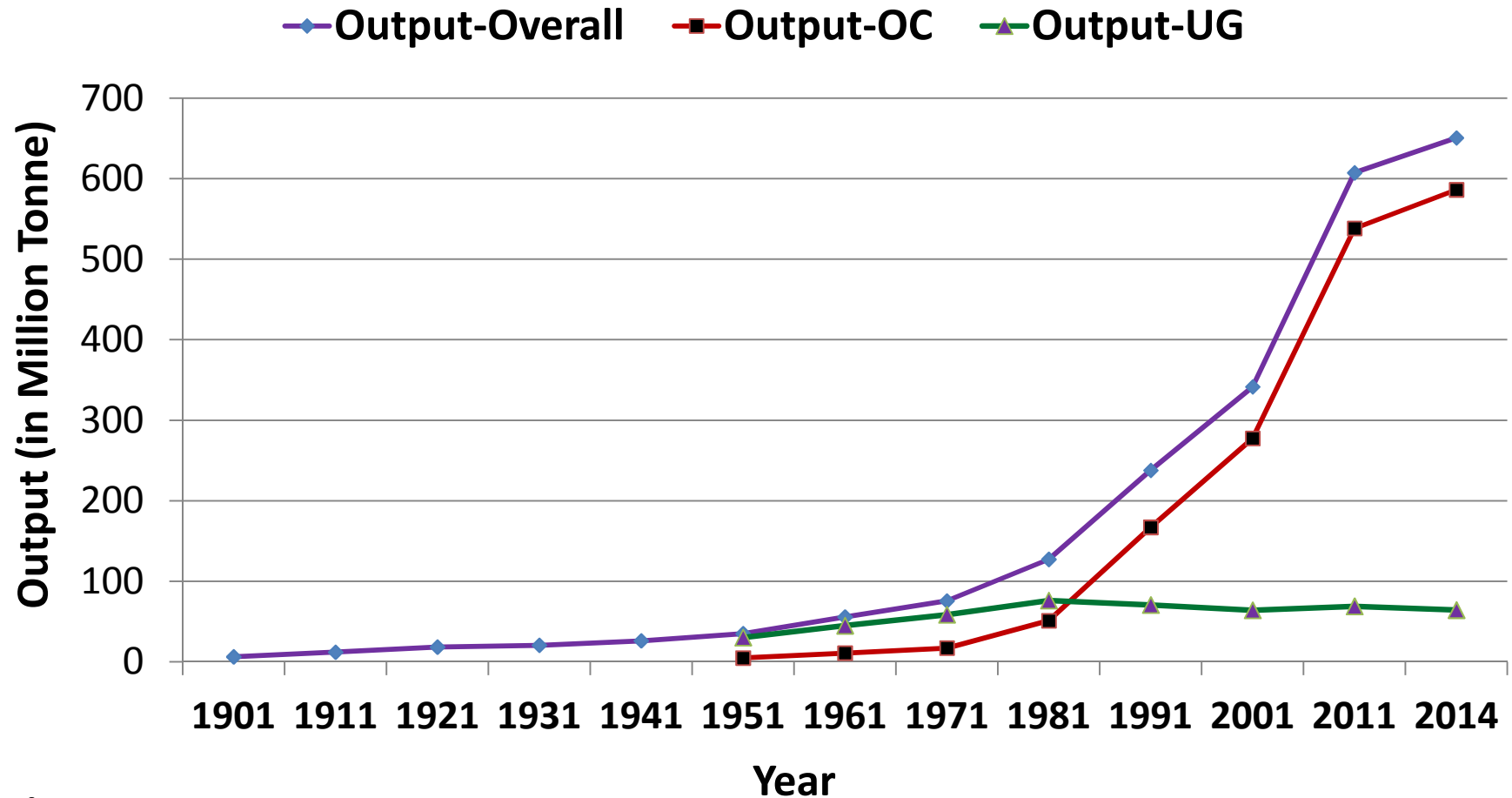


Fig.-2

Source: CIM Reports, Statistics of Mines in India and DGMS Standard Notes, 2017

# Accident scenario(contd...)

## Decade-wise Trend of Fatality Rate per 1000 Persons Employed

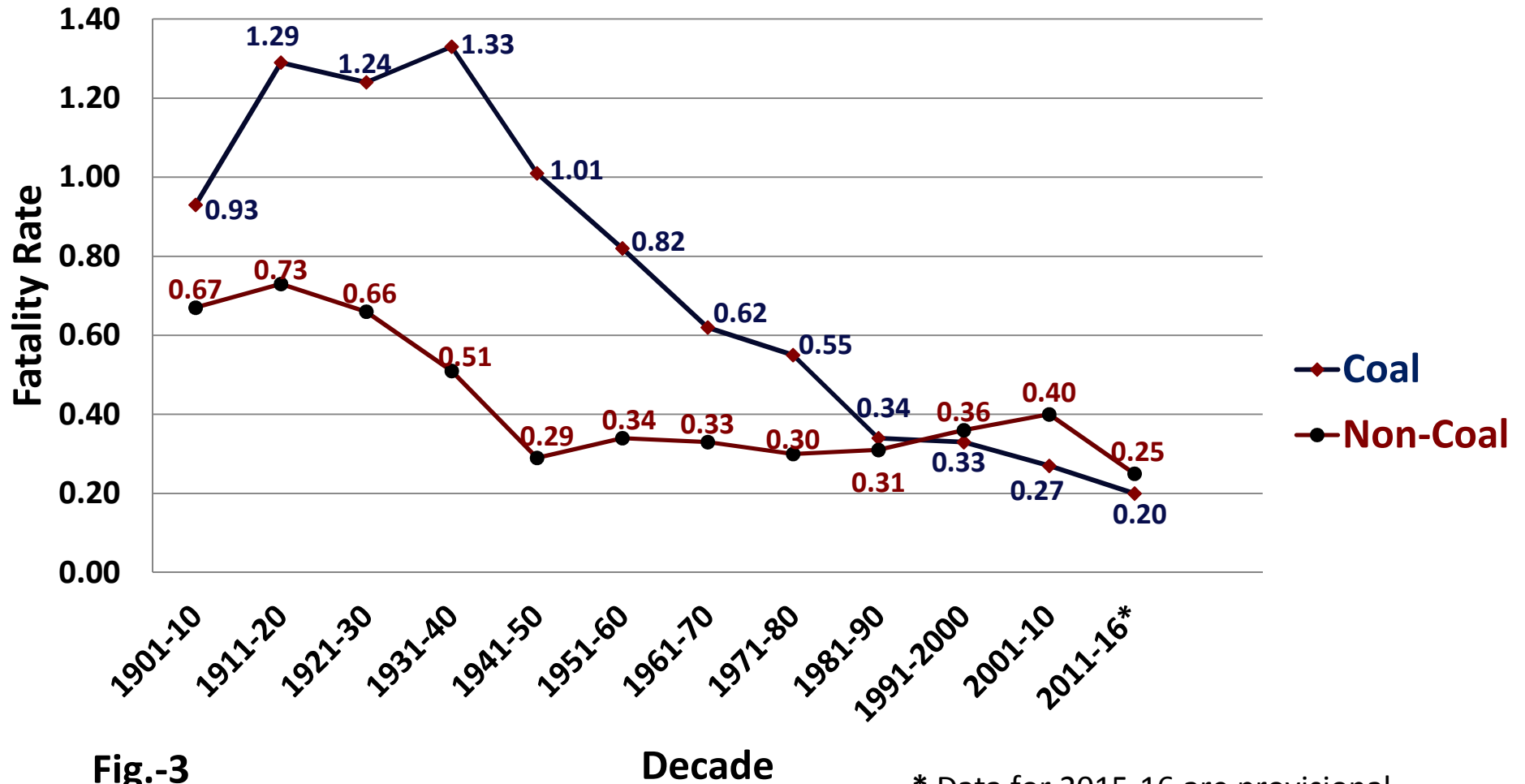


Fig.-3

\* Data for 2015-16 are provisional

# Accident scenario

- Fatality Rate **per 1000 person** employed decreased over the period considerably
- Coal-**1.33**(1931-40) to **0.2**(2011-16)
- Non coal-**0.73**(1911-20) to **0.25**(2011-16)
- Number of fatalities:
  - Coal- 70-100
  - Non coal-50-70



# Comparison with other countries

Comparison of Fatality Rate Per 20000 Hrs. Worked in Coal Mines			
Year	USA	South Africa <sup>#</sup>	India <sup>*</sup>
2001	0.0402		0.0250
2002	0.0279		0.0175
2003	0.0312		0.0225
2004	0.0273		0.0175
2005	0.0205	0.026	0.0225
2006	0.0400	0.032	0.0275
2007	0.0293	0.024	0.0150
2008	0.0237	0.030	0.0200
2009	0.0148	0.024	0.0200
2010	0.0384	0.016	0.0250
2011	0.0148	0.014	0.0150
<b>2012</b>	<b>0.0159</b>	<b>0.012</b>	<b>0.0175</b>
2013	0.0176		0.0175

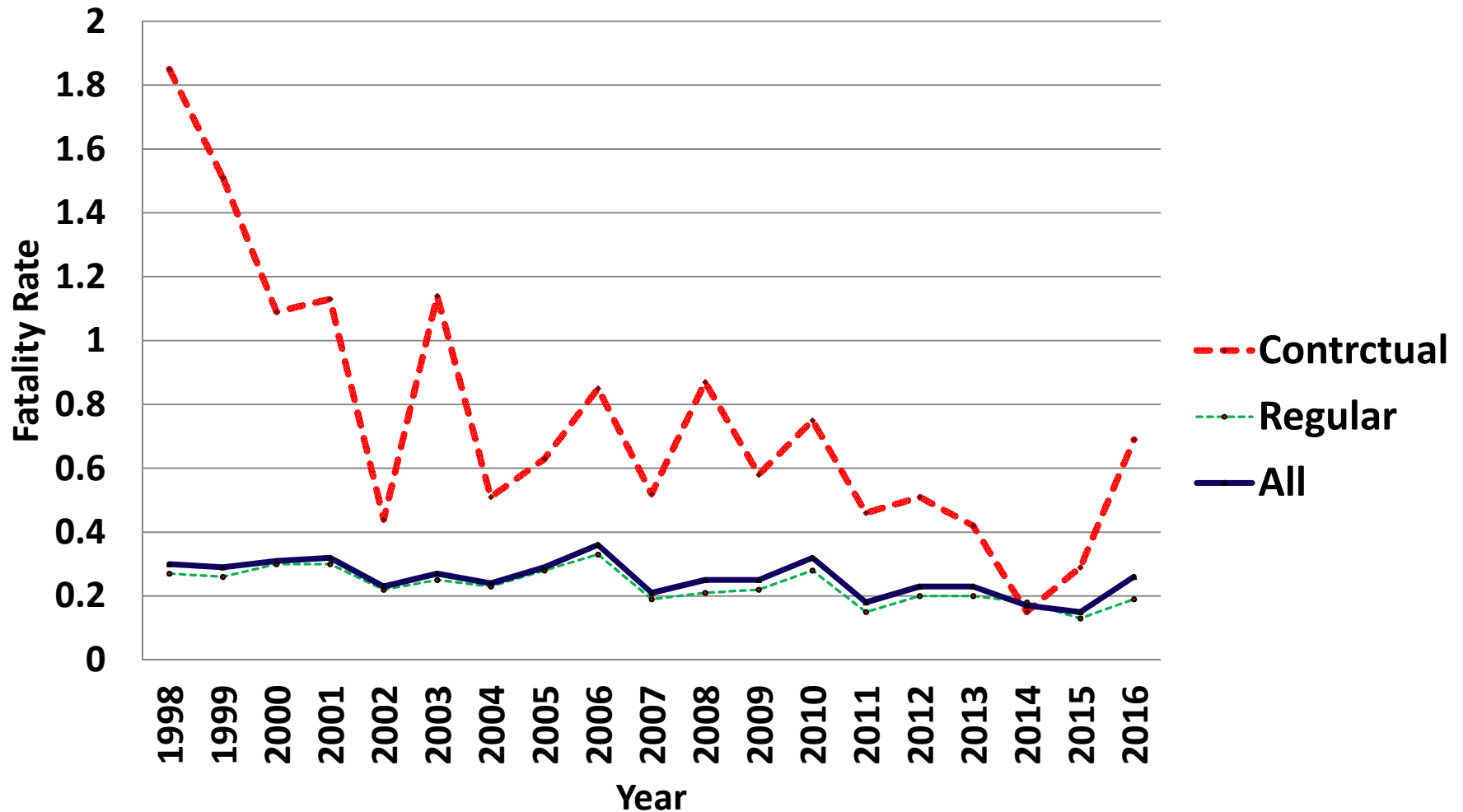
\* Figures are estimated from fatality rate per 100000 manshift

# Figures are estimated from fatality rate per million hours worked

DGMS Standard Notes-2017, MSHA (USA) Website

# Accident scenario(contd...)

Trend of Fatality Rate of Regular and Contract Employees (per 1000 Persons Employed) in Indian Coal Mines



# Accident scenario (contd...)

## Contractual fatalities & fatality rates in coal (2010-2016)

Year	No. of Fatalities			Fatality Rate per 1000 Persons Employed		
	Contract Employees	Regular Employees	All Employees	Contract Employees	Regular Employees	All Employees
2010	23	95	118	0.75	0.28	0.32
2011	16	51	67	0.46	0.15	0.18
2012	20	63	83	0.51	0.20	0.23
2013	17	65	82	0.42	0.20	0.23
2014	7	55	62	0.15	0.18	0.17
2015	14	40	54	0.29	0.13	0.15
2016	33	58	91	0.69	0.19	0.26

Data for the year 2016 is provisional

# Contractual fatality rate (coal)

## Fatality rate Contractual versus Regular workers

- The average fatality rate, in last 7(2010-2016) years ,for contractual workers(0.47) is **2.47** times more than that of regular workers(0.19)
- In 2016 contractual fatality rate is **3.5** times than regular workers

# CONSTITUTIONAL AND REGULATORY FRAMEWORK

# Constitutional responsibility

- **Under the Constitution of India:**
- **Safety, Welfare and Health of workers employed in mines are the concern of the Central Government**
  - **(Entry 55, Union List Article-246)**

# Regulatory framework

Year	Event
1890	1 <sup>st</sup> Proposal for regulation of Mining Operations after ILC in Berlin
1894	Mr. James Grundy appointed as 1 <sup>st</sup> Inspector of Mines under GSI
1895	Govt. of India initiated to frame legislation for safety of workmen
1897	1 <sup>st</sup> Major disaster in mining in KGF killing 52 persons
	Khost Coal Mine disaster in Baluchistan killing 47 persons
1901	1 <sup>st</sup> Mines Act enacted
1923	Indian Mines Act, 1923 enacted
1952	Mines Act, 1952 came into existence
	subsequently major changes done in 1959 and 1983

# Regulatory framework (Contd.)

## □ **MINES ACT, 1952**

↗ Coal Mines Regulations, 1957

↗ Metalliferous Mines Regulations, 1961

↗ Oil Mines Regulations, 1984

↗ Mines Rules, 1955

↗ Mines Vocational Training Rules, 1966

↗ Mines Rescue Rules, 1985

↗ Mines Creche Rules, 1966

↗ Coal Mines Pit Head Bath Rules, 1959

## □ **Allied Legislations**

– Electricity Act, 2003; Factories Act, 1948; Env. Protection Act, 1986



# THE DGMS

- Directorate – General of Mines Safety is sub-ordinate office to Ministry of Labour and Employment, Govt. of India.
- It operates from its head quarters at Dhanbad, Jharkhand with the assistance of eight zonal and twenty nine regional and two sub regional offices across the country.

# MISSION OF DGMS

- Reduction in risk of occupational diseases and casualty to persons employed in mines
- Drafting appropriate legislation and setting standards
- Overseeing compliance
- Variety of promotional initiatives and awareness programmes
- Creating an environment where safety is given due priority

# VISION OF DGMS

**To ensure  
nationally acceptable and  
internationally comparable  
standards  
of occupational health, safety  
and welfare for employees  
in the Indian mines.**

## Fulfilling the objective

- The objective is regulated by The Mines Act 1952 / Indian Electricity Act 2003 and subordinate legislations framed thereunder.
- The Mines Act is administered by Directorate – General of Mines Safety (DGMS) under Ministry of Labour and Employment.

# THE MINES ACT, 1952

## I. PRELIMINARY

- 1, Short title, extent and commencement.
2. Definitions
3. Act not to apply in certain cases
4. References to time of day

## II. INSPECTORS & CERTIFYING SURGEONS:

5. Chief Inspector and Inspectors
6. Function of Inspectors
7. Powers of Inspectors
8. Power of special officer to enter, measure, etc

# The Mines Act ---- continued

- 9. Facilities to be afforded to Inspectors
- 10. Secrecy of information obtained
- 11. certifying surgeons
- III. COMMITTEES:
- 12. Committees
- 13. Functions of the committees
- 14. Powers, etc, of the committees
- 15. Recovery of expenses

# The Mines Act----- continued

## IV. MINING OPERATIOND & MGMT. OF MINES

16. Notice to be given of mining operations

17. Managers

18. Duties and responsibilities of owners, agents and managers

## V. PROVISION AS TO HEALTH & SAFETY

19. Drinking water

20. Conservancy

21. Medical appliances

# The Mines Act----- continued

- SECTIONS

22. Powers of Inspectors when causes of danger not expressly provided

22A. Power to prohibit employment in certain cases

23. Notice to be given of accidents

24. Power of Govt. to appoint court of enquiry in cases of accidents

25. Notice of certain diseases

26. Power to direct investigations of causes of diseases

27. Publication of reports.



# The Mines Act----- continued

## VI. HOURS AND LIMITATION OF EMPLOYMENT:

28. Weekly day of rest
29. Compensatory day of rest
30. Hours of work above ground
31. Night shift
32. Extra wages for overtime
34. Prohibition of employment of certain persons
35. Limitation of daily hours of work
36. Notices regarding hours of work.
37. Supervisory staff
38. Exemption from provision regarding employment
39. Powers to make exempting rules
40. Employment of persons below eighteen years of age.
43. Powers to require medical examination
45. Prohibition of presence of persons below 18 yrs. of age
46. Employment of women
48. Registers of persons employed in mines

# The MINES ACT---- continued

## VII. LEAVE WITH WAGES:

Sec. 49 to 56 : Deals with Leave with wages.

## VIII. REGULATIONS, RULES & BYE-LAWS:

57. Powers of central Govt. to make regulations

58. Powers of central Govt. to make rules

59. Prior publication of regulations and rules

60. Bye-laws

61. Laying of reg, rules & by-laws before  
parliament

62. Posting of abstract from Act, regulations, etc.

# The Mines Act--- continued

## IX. PENALTIES AND PROCEDURE

- Sec. 63 to 81: Deals with penalties and procedure (obstruction, falsification of records, **failure to appoint manager**, notice of accident, omission to furnish plans, contravention of provisions wrt to employment, **contravention with dangerous results**, contravention of orders under sec. 22, etc)

## X. MISCELLANEOUS (82-88):

# THE MINES RULES

- The Mines Rules, 1955 mainly deals with the health, welfare and health of work persons employed in the Mines.

# General contents are as below

Chapter-I	Preliminary
Chapter-II	Committee
Chapter-III	Court of inquiry
Chapter-IV	Certifying surgeons
Chapter-IV a	Medical examination of persons employed or to be employed in mines
Chapter IV-b	Workmen's inspector & safety committee
Chapter-V	Health and sanitation provisions
Chapter-VII	Employment of persons
Chapter-VIII	Leave with wages and overtime
Chapter-IX	Welfare amenities
Chapter-X	Registers, notices & returns
Chapter-XI	Miscellaneous
Chapter-XII	Rescission and savings

# 9<sup>TH</sup> CONFERENCE ON SAFETY IN MINES

(2<sup>ND</sup> AND 3<sup>RD</sup> FEBRUARY 2000, AT NEW DELHI)

- RECOMMENDATIONS wrt to CONTRACTOR WORKERS:
- 1.9 Persons engaged in surface operations and, in particular, the **contractor's workers**, who incidentally are often in-experienced and least informed about job-safety matters, need closer and more competent supervision. To minimise accidents due to surface operations it would be ensured that:
  - All persons engaged at any work within the mine premises through the contractors have received **relevant training and other job-related briefings** and that the drivers of vehicles belonging to contractors entering the mine premises have additionally been explained the salient provisions of "traffic rules".
  - Each mining company should draw up appropriate training schedules and modalities in this regard and implement the same.
  - In case of smaller mines, such arrangement may be made by association of mine operators.

# 10<sup>TH</sup> CONFERENCE ON SAFETY IN MINES

**(26<sup>th</sup> AND 27<sup>th</sup> November 2007, AT NEW DELHI.)**

## 2.0 Contractor work vis-a-vis Safety:

### 2.1 **Employer's responsibilities:**

- Incorporate suitable clauses (in consistence with **risk** of the work allotted) shall be included in **tender document** (including NITs) stating how the risk arising to men & material from the mining operation / operations to be done by the contractors shall be managed.
- **Ensure** that contractors are **familiar** with the relevant parts of the statute, health and safety management system and are provided with copies of such documents prior to commencing work.
- **Ensure** that contractor's arrangements for health and safety management are **consistent** with those for the mine owner. All the rules, regulations and bye-laws as applicable to the mine owner are also applicable to the contractor. Details of the contractors' workmen should be maintained in the owner's Form-B Register. Whereas, C, D & E Registers for contractor men may be maintained independently by the owner. All the above Registers shall be kept in the mine office of the manager.

# 10<sup>TH</sup> CONFERENCE--- cont.

- Ensure that contracts should preferably be of **longer period (three years)**, so that there is adequate scope of management of safety by the contractor.
- Ensure that contractor's provide the machinery, operator and other staff with **written safe work procedures** for the work to be carried out, stating clearly the risk involved and how it is to be managed.
- **Monitor all activities of the contractors** to ensure that contractors are complying with all the requirements of statute and the system related to safety. If found non-compliant of safety laws directing the contractor to take action to comply with the requirements, and for further non-compliance, the contractor may be **suitably penalized**. Clause to this affect may be a part of the agreement between the employer and the contractor.
- Where a **risk** to health or safety of a person arises because of a non-compliance directing the contractor **to cease work** until the non-compliance is corrected.



# 10<sup>TH</sup> CONFERENCE--- cont.

## 2.2 Contractor's responsibilities

- Prepare written **Safe Operating Procedure (SOP)** for the work to be carried out, including an assessment of risk, wherever possible and safe methods to deal with it/them.
- Provide a copy of the SOP to the person designated by the mine owner who shall be supervising the contractor's work.
- Keep an up to date SOP and provide a copy of changes to a person designated by the mine owner.
- Ensure that all work is carried out in accordance with the Statute and SOP and for the purpose he may deploy **adequate qualified and competent personnel** for the purpose of carrying out the job in a safe manner.
- For work of a specified scope/nature, develop and provide to the mine owner a **site specific code of practice**.
- **Ensure** that all sub-contractors hired by him **comply** with the same requirement as the contractor himself and shall be liable for ensuring compliance all safety laws by the sub or sub-sub contractors.
- All persons deployed by the contractor for working in a mine **must undergo vocational training, initial medical examination, PME**. They should be **issued cards stating the name of the contractor and the work and its validity period, indicating status of VT & IME**.

# 10<sup>TH</sup> CONFERENCE--- cont.

- Every person deployed by the contractor in a mine **must wear safety gadgets** to be provided by the contractor. If contractor is unable to provide, owner/agent/manger of the mine shall provide the same.
- The contractor shall submit to **DGMS returns indicating** – Name of his firm, Registration number, Name and address of person heading the firm, Nature of work, type of deployment of work persons, Number of work persons deployed, how many work persons hold VT Certificate, how many work persons undergone IME and type of medical coverage given to the work persons. The return shall be submitted quarterly (by 10th of April, July, October & January) for contracts of more than one year. However, for contracts of less than one year, returns shall be submitted monthly.

# 10<sup>TH</sup> CONFERENCE--- cont

- **2.3 Employee's responsibilities**
- (a) An employee must, while at work, **take reasonable care for the health and safety of people** who are at the employee's place of work and who may be affected by the employee's act or omissions at work.
- (b) An employee must, while at work, **co-operate** with his or her employer or other persons so far as is necessary to enable compliance with any requirement under the act or the regulations that is imposed in the interest of health, safety and welfare of the employee or any other person.

# 11<sup>TH</sup> CONFERENCE ON SAFETY IN MINES

**(4<sup>th</sup> & 5<sup>th</sup> July, 2013 at New Delhi.)**

- The above mentioned recommendations of 9<sup>th</sup> & 10<sup>th</sup> conferences were repeated in 11<sup>th</sup> conference at clause 1.6(a) to 1.8.3 (b).

# 11<sup>th</sup> CONFERENCE ----- cont.

## 3.0 Safety, Health and Welfare of Contractual Workers:

- 3.1 The recommendations made in the 10<sup>th</sup> conference on Safety in Mines regarding safety, health and welfare of contractor's workers shall be complied within two years. Owner, Agent and Manager shall be responsible for ensuring compliance at their respective mines.
- 3.2 There shall be provisions for modifications in Notice Inviting Tenders (NITs) to fulfil the requirement of statute/circulars issued by DGMS from time to time subsequent to the finalization of NITs also.
- 3.3 The contractor shall not employ or terminate his worker without the knowledge of the mine management.
- 3.4 Payment to contractor's workers including leave with wages shall be made through bank only.

# 11<sup>th</sup> CONFERENCE ----- cont.

- 3.5 In case of **non-routine type of work** in the mine a **Work-Permit** system, outlining the precautions to be adopted, SOPs, supervision, persons responsible for the job etc., shall be adopted.
- 3.6 Each company shall frame a **safety, health and welfare policy** for their contractor's workers keeping in view the requirement of Mines Act and Rules & Regulations made there-under. The details of the policy shall be included in the tender document which will be a **binding clause** for the contractor.
- 3.7 Each mining company shall extend all benefits including **medical facilities and payment of wages to contractor's workers receiving injury whilst on duty**. Owner, Agent and Manager shall be responsible for ensuring compliance at their respective mines.
- 3.8 **Medical facilities** shall be extended to contractor workers.
- 3.9 Central Government should take steps against non-compliance of the recommendations of the National Safety Conferences.

# Strategies for Outsourcing & contractual worker

## **Outsourcing & contract work:**

1. Has emerged as model of business in all areas
2. Contributing more number of accidents than their share of population

## **Challenge/Goal:**

Achieving Zero harm potential

# Transforming the Culture----- the path ahead

- I. The Regulator-DGMS

- 1. Data collection, analysis & dissemination
- 2. Regulatory framework updation
- 3. Inspection & auditing
- 4. Facilitate in capacity building w.r.t. contractual deployment.

- II. The Operator (Owner /contractor)

- 1. Integrated mining activities- (Safety & Health part of production activities)
- 2. Risk management as tool- SMS/SMP
- 3. Best practices
- 4. Use of Technology
- 5. Bonus & performance incentives
- 6. Elimination of discrimination (Regular vs. contractual)



# Transforming----- the Path Ahead

- III. The Society/associations/Unions:
- 1. Tripartite approach – safety conferences, meetings, etc
- 2. Communication & consultation
- 3. Constructive support & Leadership

# Conclusion

## Challenge is complex and enormous

**Mine operators, regulating agency and workers representatives have to play their defined roles to achieve target of Zero Harm by creating an environment for -**

- **Systematic , scientific approach**
- **adopting Safety management system**
- **Team work**
- **Communication & Consultation among stakeholders**
- **Use of technology**

# Conclusion

Zero Harm

**Above all**

**Desire to change**

**Commitment**

**Leading by example**

**Respect to Human dignity**

**by**

**top leadership and all of us are key to improve the existing safety standard in mines in our country**

# Thank You

for a patient  
hearing

