

The Organization

13.1 The Directorate General Factory Advice Service & Labour Institutes (DGFASLI), Mumbai which is an attached office of the Ministry of Labour & Employment, functions as a technical arm of the Ministry in regard to matters concerned with safety, health and welfare of workers in factories and ports. It assists the Central Government in formulation/review of policies and legislations on occupational safety and health in factories and ports, maintains a liaison with Factory Inspectorates of States and Union Territories in regard to the implementation and enforcement of provisions of the Factories Act, 1948; renders advice on technical matters, enforces the Dock Workers (Safety Health & Welfare) Act, 1986; undertakes research in industrial safety, occupational health, industrial hygiene, industrial psychology etc.; and provides training, mainly, in the field of industrial safety and health including one year Diploma Course in Industrial Safety, three-months Certificate Course in Industrial Health (Associate Fellow of Industrial Health -AFIH), One month Specialized Certificate Course in Safety and Health for Supervisory Personnel working in Hazardous Process Industries.

13.2 The DGFASLI organisation comprises of the headquarters; five Labour Institutes and 11 Inspectorates of Dock Safety in Major Ports. The Headquarters in Mumbai has three divisions/ cells, namely, Factory Advice Service Division, Dock Safety Division and Award Cell.

13.3 The Central Labour Institute in Mumbai started working from 1959 and was shifted to its present premises in February, 1966. Over the years, the Institute has grown and assumed the status of a major National Resource Centre with the

following divisions:

- Industrial Safety
- Industrial Hygiene
- Industrial Medicine
- Industrial Physiology
- Industrial Psychology
- Industrial Ergonomics
- Environmental Engineering
- Staff Training
- Small Scale Industries Cell
- Productivity
- Major Hazards & Chemical Safety
- Management Information Services
- Safety and Health Communication
- Construction Safety

13.4 The different divisions at the Institute undertake activities such as carrying out Studies and Surveys, organising training programmes, seminars and workshops, rendering services, such as, technical advice, Safety Audits, testing and issuance of performance reports for personal protective equipment, delivering talks, etc.

13.5 The Regional Labour Institutes (RLIs) located in Kolkata, Chennai, Kanpur and Faridabad are serving the respective regions of the country. Each of these institutes has the following divisions/ sections:

- Industrial Safety
- Industrial Hygiene
- Industrial Medicine

- Staff Training and Productivity
- Safety and Health Communication
- Major Hazards & Chemical Safety

13.6 The Inspectorates of Dock Safety are established at 11 major ports of India viz. Kolkata, Mumbai, Chennai, Visakhapatnam, Paradip,

Kandla, Mormugao, Tuticorin, Cochin, New Mangalore and Jawaharlal Nehru Port. The Inspectorate of Dock Safety at Ennore Port is in the process of being set up.

13.7 The manpower inventory of the organisation as on 31.10.2015 is given in the Box below:

Staff Position of DGFASLI

Units	Technical		Administrative		Total	
	Sanctioned	Working	Sanctioned	Working	Sanctioned	Working
Headquarters	11	10	46	33	57	43
CLI, Mumbai	49	40	69	61	118	101
4 RLIs	61	37	80	41	141	78
Dock-Safety Inspectorates	28	14	28	18	56	32
Total	149	101	223	153	372	254

Activities of the Organization

Safety and Health in Factories

13.8 The Factories Act, 1948 is the principal legislation for regulating various aspects relating to safety, health and welfare of workers employed in factories. This Act is a Central Enactment, which aims at protecting workers employed in factories from industrial and occupational hazards. The State Governments and Union Territory Administration frame their Rules under the Act and enforce provisions of the Act and Rules through their Factory Inspectorates / Directorates.

13.9 The Ministry of Labour and Employment is accountable to the Parliament for proper enforcement of the Act. Uniformity in the application of the provisions of the Act in various States and Union Territories is achieved by

circulating the Model Rules prepared by DGFASLI, which are incorporated by them in their State Factories Rules with necessary modifications to suit local needs. In the task of framing the Model Rules, the DGFASLI, on behalf of the Ministry of Labour and Employment, enlists the cooperation and involvement of the State Governments by convening annually a Conference of Chief Inspectors of Factories (CIF) of the states and UTs. The Conference discusses all matters relating to the administration of the Act as well as proposed amendments. Besides, the Conference also serves as a forum for discussion of the progress made in the techniques and methods of prevention of accidents and ill health in factories. The Model Rules are being upgraded in consultation with the CIFs.

13.10 The 54th All India Conference of Chief Inspectors of Factories was organised by the

Directorate General Factory Advice Service and Labour Institutes (DGFASLI), Mumbai, Govt. of India, at Regional Labour Institute, Faridabad on 30th September and 1st October, 2015.

Dock Safety

13.11 The Dock Workers (Safety, Health and Welfare) Act, 1986 was enacted on 14th April, 1987. The Dock Workers (Safety, Health and Welfare) Rules, 1989 and Regulations, 1990 were framed under this Act. The Act and Regulations cover the safety, health & welfare aspects of dock worker engaged in loading and unloading of cargo, including the work incidental to dock work. In addition, the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 framed under the Environment (Protection) Act, 1986 are also enforced by DGFASLI in the major ports of India through the Inspectorates of Dock Safety.

Activities- Performed

13.12 Inspections under the Dock Workers (Safety, Health and Welfare) Rules, 1989 and Regulations, 1990 were carried out at the major ports by the Inspectorates of Dock Safety. Further training programmes were also organised for the benefit of the various stakeholders.

Activities- Forecast

- The 13th Advisory Committee Meeting will be organised during the year 2016.
- One National Survey on 'Occupational Safety & Health Training Need Assessment in Port Sector' is under progress and will be completed during the year 2016.

Training Programmes

Professional Programmes

- One year Advanced / Post Diploma in Industrial Safety Courses for 2014-15 were held at CLI

Mumbai, RLI Kolkata, RLI Chennai, RLI Kanpur and RLI Faridabad, benefitting 214 officers from 161 organisations to become qualified Safety Officers as required under Section 40-B of the Factories Act, 1948 and Rules made there under.

- Three months Associate Fellow in Industrial Health (AFIH) Course for 2014-15 were held at CLI, Mumbai & RLI, Faridabad benefitting 46 Medical personnel from 42 organisations.
- One month Specialised Certificate Course for Supervisors working in Hazardous Process Industries was held during 17-19 September, 2015 at CLI, Mumbai, under Section 41-C of the Factories Act, 1948 and the Rules made there under.

13.13 Training Programmes are conducted in the field of Industrial Safety and Health. During the period April-October 2015, 77 training programmes including seminar / workshops and in-plant programmes were conducted benefitting 2245 participants. In addition, Appreciation programmes were conducted for 2403 beneficiaries at various divisions of DGFASLI and the four Labour Institutes, in Mumbai, Kolkata, Chennai and Kanpur.

Studies and Sureveys

13.14 National Studies and Surveys are undertaken by DGFASLI, in its efforts towards helping the Central Government to ascertain the status of working conditions, safety and health in factories and port sector, and to formulate the appropriate standards for inclusion in statutes. Under Section-91A of the Factories Act, 1948 in respect of accident prone factories, a Safety and Health Survey at national level is being carried out. A National Study on 'Occupational Safety and Health in Construction Industry was conducted by RLI, Chennai during the year.

13.15 State level Studies and Surveys are undertaken in the State in certain priority areas to ascertain status of Safety Health and Environment at work place in the factories. Total 03 State level Studies were completed by RLI, Kanpur during the period April–October, 2015.

13.16 Unit level consultancy studies are carried out at the request of the management and reports are submitted for implementation of the recommendations for further improvements in factories concerned. A total 29 Consultancy studies were carried out during the period April–October, 2015.

National Referral Diagnostic Centre

13.17 Suspected cases of occupational diseases, such as, silicosis, occupational dermatitis etc. are referred to the National Referral Diagnostic Centre for opinion.

Major Hazards and Chemical Safety

13.18 The Major Hazards & Chemical Safety Division at the CLI, Mumbai advises State Governments and MAH units on control of Major Accident Hazards, preparation of emergency plans, Safety Audit, Risk Assessment etc. As on date, the information on MAH Units, hazardous chemicals & on-site emergency plans in the country is as under :-

MAH Units	1756
Hazardous Chemicals	225
On-site emergency plans	1448

13.19 Management Information Service (MIS) Division of Central Labour Institute, Mumbai proved to be the best source of information about the activities of DGFASLI. The goals of MIS are to implement the organizational structure and dynamics of the department for the purpose of

managing the organization in a better way and capturing the potential of the information's on OSH for competitive advantage to the Industries as well as state Governments. The basic functioning of MIS are:

- Website updating and management: - DGFASLI website had been launched with URL: www.dgfasli.nic.in. This website contains the information on Statutes on safety and Occupational Health, Factories Act 1948, Dockworkers safety & Health regulation, Information major research project initiated during five year plan, Advisory services on PPE of Respiratory and non Respiratory system.
- Under 'Digital India' campaign online form for approval of competent person, flame proof equipment and Notification of site has been developed and hosted on website of DGFASLI and also being monitored by national portal.
- The Library cum information centre has been equipped with more than 25,000 books on occupational safety and health along with various journals on OSH.
- Website also uploaded with information on MSDS, abstracts of studies, Training Calendar, Tenders and Notices on ADIS, AFIH related information.

Industrial Safety, Health and Welfare Centre

13.20 Industrial Safety, Health and Welfare Centre of the Central Labour Institute and Regional Labour Institutes promote the hazard communication through display of panels, models, charts, graphs, write-ups etc. which is visited by workers, executives from industry and also delegates from other countries. During the period April- October, 2015, total 1009 visitors benefitted through 30 Appreciation programmes conducted on Safety & Health in this centre.

Testing of Personal Protective Equipment

13.21 The laboratories for respiratory and non-respiratory personal protective equipment testing at Central Labour Institute, Mumbai undertake performance tests of Canisters, Masks, Helmets, Safety Shoes, Safety Goggles, Safety Belts and Welding Glasses etc. During the period, 132 respiratory protective equipments such as dust respirators, canisters, dust filters etc and 159 non-respiratory equipment such as helmets, safety shoes etc were tested to ascertain their performance characteristics as per relevant BIS standards.

Approval of Flame Proof Electrical Equipment

13.22 As per the BIS standard IS: 2148-2004, DGFASLI is the approving agency for Flame Proof Electrical Enclosures for their use in hazardous atmosphere. During the period April– October, 2015 total 01 manufacturer was issued approvals for 5 flame proof equipments.

Representation on BIS Committees

13.23 Officers of DGFASLI represented on several BIS Committees / Sub-committees dealing with Safety and Health matter and offered comments on draft standards.

Promotional Activities (Award Scheme)

13.24 The DGFASLI on behalf of the Ministry of Labour has been implementing the Vishwakarma Rashtriya Puraskar (VRP) (earlier known as Shram Vir National Awards) and the National Safety Awards scheme since 1965. These schemes were modified in 1971, 1978 and again in 2007. The schemes presently in operation are as under :

Vishwakarma Rashtriya Puraskar (VRP): It is designed to give recognition at the national level to outstanding suggestions resulting in:

- Higher productivity

- Improvement in safety and working conditions
- Savings in foreign exchange (import substitution as well as quality and safety of products) and
- Improvement in the overall efficiency of the establishments. It covers workers employed in factories, docks, construction sites and Nuclear Installation.

National Safety Awards (NSA): National Safety Awards are given in recognition of good safety performance on the part of the industrial establishments registered under The Factories Act, 1948, the employers covered under The Dock Worker (Safety, Health and Welfare) Act, 1986 and The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and installations under The Atomic Energy Regulatory Board (AERB). Shields and Certificates are awarded to Winners and Runners up. Schemes I to X are meant for factories, constructions sites and Installations under AERB and Schemes XI and XIII are for Ports.

Awards Distribution Function for VRP and NSA (Performance year 2013)

13.25 Vishwakarma Rashtriya Puraskar (VRP) & National Safety Awards (NSA) function for the performance year, 2013 was organised at Sirifort Auditorium, New Delhi on 17.09.2015. The awards were given by Hon'ble Minister of State (Independent Charge) for Labour & Employment Shri Bandaru Dattatreya to 132 awardees of VRP and 98 NSA awardees. The awards presentation function was chaired by the Secretary, Labour & Employment. During this function, an exhibition on Modern & Traditional craft with theme OSH- Good Practices & Workers Participation was organised. Various stalls on Modern & Traditional crafts and PPE were displayed. The awards function was attended by about 1200 delegates, Safety professional and Government officials. The event

got wide publicity in media and leading news papers.

Plan Schemes of DGFASLI

13.26 During the year 2015-16 DGFASLI proposes to undertake the following plan schemes for Improving the Occupational Safety and Health in the manufacturing and Port Sectors.

Plan Scheme-I: "Development of Regional Labour Institute Faridabad as Advanced Centre of Safety Systems for MSME and Chemical Process Units"

Objectives

- The objective of the scheme is to develop Regional Labour Institute, Faridabad as an advance centre of Safety Systems to meet the specialized needs of MSMEs and Chemical Process Industry.
- Development of Advance Training Centre, Advance Research Centre and Awareness Centre for carrying out the Technical activities.
- To develop wide spectrum Door-step Facility to impart knowledge, skills and develop awareness among the work-force and owner-managers of MSMEs.

Achievements and Forecast Activities

Sl. No.	Major components/ Activities	Achievements (April- October, 2015)	Forecast Activities(November 2015- March, 2016)
1.	Creation of Various posts	-	-
2.	Setting up of Centres / Laboratories *	1	1
3.	Short duration training programme	1	3
4.	Long duration training programme		
5.	In-plant Training*	2	2
6.	Training programme for Target Groups i.e. Factory Inspectors/ Safety Officers etc.	-	1
7.	One year post Diploma course in Industrial Safety	1	-
8.	Certificate course – Associate Fellow of Industrial Health (AFIH) for Medical Officers	-	1
9.	Training programme for small & Medium enterprises	-	1
10.	Research/Studies/Surveys	2	2
11.	National Seminar/ conference /Workshops	2	1
12.	Publications/ Posters	2	-
13.	Video film	-	-
14.	Awards	2	1

*depending upon the requirement

- Setting up of color and lighting centre at RLI Faridabad is in progress.

Plan Scheme-II : “Strengthening of DGFASLI Organization and OSH in Factories, Ports & Docks”

Objectives

13.27 To strengthen the infrastructure facilities at DGFASLI organisation including Central Labour

Institute at Mumbai and Regional Labour Institutes located at Chennai, Kanpur and Kolkata and Inspectorates Dock Safety at the 11 major ports for improving occupational safety and health status of workers in factories, ports and docks throughout the country thereby contributing in prevention and control of occupational injuries and diseases.

Achievements and Forecast Activities

Sl. No.	Major Component and Activities	Achievements (April- October, 2015)	Forecast Activities (November 2015 - March, 2016)
1.	a) Upgradation and development of data bases	-	4
	b) Development of Application Programmes	-	2
	c) Material Safety Data Sheet (MSDS) on request	-	-
	d) Industry-wise safety and health information	49	15
	e) INDOSHNEWS Publication	-	-
	f) Publication of Manuals, brochures	34	4
2.	Implementation of minimum agenda for e-governance	10	2
3.	Conduction of specialized training programmes, seminars, workshops	12	18
4.	Conduction of studies/surveys/audits	16	19
5.	Enforcement activities in major ports (inspection of ships, container ship, loose gears, docks, container yards, hazardous installations, etc.)	1055	445
6.	Testing of Respiratory & Non Respiratory PPE	330	470

Development of Regional Labour Institute Shillong (New Scheme)

Objective

- The objective of the scheme is to cater to the needs of the North-Eastern Region in the areas of Occupational, Safety & Health which at present, due to the heavy workload of the Regional Labour Institute, Kolkata, are not effectively met.

New Initiatives

13.28 To improve the functioning of the organization, following initiatives were taken by the DGFASLI :

- Workshop on Asbestosis & ILO Radiograph on Pneumoconiosis for Doctors was organized by CLI, Mumbai during 14-17 April, 2015.
- Two days National Conference on “Environment Health and Safety in Industries

(EHSI 2015) was organized by RLI, Chennai during 10-11 September, 2015.

- Workshop on Silicosis & ILO Radiograph on Pneumoconiosis was organized by CLI, Mumbai during 09-11 September, 2015.
- Exhibition Centre on "Asbestosis and Silicosis" and "Machine guarding" was inaugurated by Hon'ble Minister of State (Independent Charge) for Labour & Employment Shri Bandaru Dattatreya on 30.09.2015 at RLI, Faridabad. About 300 Safety Professionals, Employers representatives, Trade union leaders and government officials visited the centre.
- The Task Force for the review of National Policy on safety, Health and Environment at Workplace has submitted its report to the Ministry and the report is now under consideration of the Inter-Ministerial Committee. The process of reviewing the policy is under progress.
- The CLI/ RLIs have been assigned as Centre of Excellence in specific areas as follows:

CLI, Mumbai	Dock Safety and Engineering Industry
RLI, Faridabad	MSME and Chemical Process Safety.
RLI, Chennai	Construction and Automobile Industry.
RLI, Kanpur	Sugar Industry and Power Generation.
RLI, Kolkata	Ferrous and Non - Ferrous Metals and Paper Industry

13.29 DGFASLI would be celebrating its Golden Jubilee on 09-10 February, 2016 and as a part of the Celebrations a number of activities at the Institute as follows have been planned:

1. Two Day National Conference on 'OSHE - Best Practices' (In collaboration with Directorate of Industrial Safety and Health, Government of Maharashtra) in which OSH professionals from across the country would meet and share their experiences being adopted and providing a forum for emulation by others.
2. Launch of the Year Long Celebrations "National Campaign on Occupational Safety and Health" with the theme of "व्यवसायिक सुरक्षा एवं स्वास्थ्य अभियान". These Awareness programmes will be through organizing and conducting of specialized seminars, workshops, training programmes, webinars, development of Video Films, Posters, Pamphlets, and Reading Materials for distribution amongst all concerned.
3. Exhibition on Safety, Health and Environment (in collaboration with different stakeholders) would be kept for display by the manufacturers of Fire Fighting Equipments, Personal Protective Equipments, Workplace and Environment Monitoring Equipments, Occupational Health Monitoring and Emergency Response and Preparedness Equipments / Models / Literature etc.
4. Release of Souvenir and a Booklet on 'DGFASLI – In Quest of Making Workers Safe and Healthy' in Hindi and English. This comprehensive booklet is to inform all OSH stakeholders about the activities undertaken and services provided by this organisation in the field of OSH.

Directorate General of Mines Safety (DGMS)

13.30 Mineral constitutes the backbone of the economic growth of any nation and India has been eminently endowed with this gift of nature. Progressive industrialization witnessed the rise in demand and hence production of various minerals. Growth of mining under the impact of successive Five Year Plans has been phenomenal. To take care of the enhanced targets, mechanization of mining activities has taken place. **Table 13.1** shows the trends of some important parameters like number of mines, value of minerals mined, aggregate machine power installed and explosive used. Large-scale mechanization led to higher risk to health and safety of work persons deployed in mines. Under the Constitution of India, Safety, Welfare and Health of workers employed in mines are the concern of Central Government (Entry 55 – Union List – Article 246). The Mines Act, 1952 and the Rules and Regulations framed thereunder regulate the objective. These are administered by the Directorate-General of Mines Safety (DGMS) under the Union Ministry of Labour and Employment. Apart from administering the Mines Act and Subordinate Legislations thereunder, DGMS also administers other allied legislations.

These are as follows:

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 Crèche Rules, 1966.

- Coal Mines Pit Head Bath Rules, 1959.

Electricity Act, 2003

Indian Electricity Rules, 1956

Allied Legislation

- Factories Act, 1948: Chapters III & IV
- Manufacture, Storage & Import of Hazardous Chemicals Rules, 1989 under Environmental Protection Act, 1986
- Land Acquisition (Mines) Act, 1885
- The Coal Mines (Conservation & Development) Act, 1974

Organization Set up

13.31 The Directorate General of Mines Safety is a subordinate office under the Ministry of Labour and Employment with its Headquarters at Dhanbad (Jharkhand) and is headed by the Director-General of Mines Safety. At Head Quarters, Director General is assisted by specialist staff-officers of Mining, Electrical and Mechanical Engineering, Occupational Health, Statistics, Law, Survey, Administration and Accounts disciplines. The Head Quarter also has a Technical Library and S&T Laboratory as a back-up support to the Organisation. Field Organisation has a two-tier network. The entire country is divided into eight zones under the charge of Deputy Director-General. There are three to four Regional offices under each Zonal office. Each Region is under the charge of Director of Mines Safety. There are in all 29 such Regional Offices. Three Sub-Regional offices have also been set up in important areas of concentrated mining activities away from Regional offices. Each of these is under charge of Deputy Director. Besides having inspecting officers of Mining cadre in each zone, there are officers of Electrical and Mechanical Engineering and Occupational Health disciplines. DGMS has a total

sanctioned strength of 732 persons with 673 in position as on 31.10.2015 as indicated below :

Category	Number of Sanctioned posts as per SIU	Number of Employees In position
Group-A	279	181
Group-B (Gazetted)	38	28
Group-B (Non-Gazetted)	186	157
Group -C	229	307*
TOTAL	732	673
	231**	
* Incumbents present on the post abolished / earmarked for outsourcing.		
**To be filled up by outsourcing.		

Trend of Accident

13.32 Trend in fatal and serious accidents in both Coal as well as Non-Coal mine is given in **Table 13.2**. Cause-wise distribution of fatal accidents is also given in **Table 13.3** and **Table 13.4** with respect to coal and Non-Coal mines. Dumpers and Trucks were the biggest contributor to fatal accidents in Coal mines, followed by Non-Transportation Machinery. Fall of persons had the largest share of fatal accident in Non-coal mine followed by Dumpers and Trucks. To arrest the number of accidents the Directorate-General of Mines Safety has taken various measures.

Safety Measures

13.33 To ensure enforcement of necessary safety measures in mines, inspections and inquiries are carried out by the inspecting officers of DGMS. Apart from inspecting coal, metalliferous and oil mines DGMS also undertakes investigation into all fatal accidents, certain serious accidents and dangerous occurrences and makes recommendations for remedial measures to

prevent recurrence of similar mishaps. The Trend of accidents from 2001 to 2015 is shown in **Table 13.5A**. The trend in fatal accidents and fatality rate per 1000 persons employed on 10 yearly average basis from the year 1951 to 2010 and 2011-2015 is shown in **Table 13.5B**.

13.34 Power under section 22 and 22A of the Mines Act, 1952, Regulation 103 of Coal Mines Regulations, 1957 and Regulation 108 of Metalliferous Mines Regulations, 1961 has been vested with DGMS to issue improvement notices and prohibitory orders to resist or prohibit employment of persons in mines or part of mines. The number of inspections and inquiries carried out from the year 1998 onwards are shown in **Table 13.6**.

Circulars

13.35 The DGMS issues circulars to the mining industry on occupational safety and health matters, which may have wide implications. During the period 01.04.2015 to 31.10.2015, a total of 08 Technical Circulars, 16 Approval Circulars and 04 Technical Instructions were issued.

Competency Test

13.36 To ensure that only competent persons are appointed as mine Managers, Surveyors, Overman, Foreman, etc. the DGMS on behalf of the Board of Mining Examinations constituted under the Coal Mines Regulation, 1957 and the Metalliferous Mines Regulations, 1961, conducts examinations and issues certificates of competency. Details of applications received and competency certificates issued during the period from 01.04.2015 to 31.10.2015 have been given in **Table 13.7**.

Approval of Mines Safety Equipments

13.37 Approval is granted by Chief Inspector of Mines (Also designated as Director General of

Mines Safety) to various equipments for use in mines to fulfill the statutory obligation enshrined under different provisions of Coal Mines Regulation, 1957, Metalliferous Mines Regulations, 1961, Oil Mines Regulations, 1984, Mines Rescue Rules, 1985 and Indian Electricity Rules, 1956. The procedure of approval includes scrutiny of the applications mainly to find out the quality control system adopted by the manufacturers and their capacity to manufacture equipments/material etc., which will be capable of working safely under the hostile environment of the mines and remain operative during prolong use under adverse condition. The equipments also need to conform to the relevant Indian Standards and in case there is no Indian Standard the standards of the country of origin (ISO/EN/DIN, etc.). The application should also include test certificates from approved laboratory as per the relevant standard. After the documents are scrutinized and found in order, field trial approval is granted to check the pit worthiness of the equipments in various mines. After the equipments are successfully field tried, performance report from the concerned mine management is obtained. If the above reports are found satisfactory regular approval is granted for a specific period.

13.38 The equipments/machinery/appliances and materials requiring approval can be broadly categorized into:-

- Personal protective equipment.
- Environmental monitoring instruments and devices.
- Machinery and other equipments for carrying out mining operations and
- Safety materials for use in underground mines.

13.39 The table below shows particulars of items approved during the period 01.04.2015 to 31.10.2015:

Resuscitator, Self Rescuer, Breathing Apparatus approved during 01.04.2015 to 31.10.2015			
Items	Number of regular approval/ approval extension granted	Number of Field Trial approvals/ Field Trial Approval Extension granted	Total number of Approvals granted
Breathing Apparatus	00	00	00
Resuscitator/ Reviving Apparatus	01	00	01
Self Rescuers (COSR)	02	00	02
Total	03	00	03

Equipment, appliances, materials and machinery approved during 01.04.2015 to 31.10.2015		
Number of regular approval/ approval extension granted	Number of field trial approvals/ field trial approval extension granted	Total number of approvals granted
07	05	12

Explosives, Exploders & Detonators, etc. approved during 01.04.2015 to 31.10.2015		
No. of regular approval/ approval extension granted	Number of field trial approvals/field trial approval extension granted	Total number of approvals granted
20	03	23

Approvals for use of Mechanical Equipments etc. in mines were granted during 01.04.2015 to 31.10.2015 is given below:-

Sl. No.	Type of approval	No. of approval granted
1.	No. of field trial/extension	04
2.	Regular approval/extension	12
Total no. of approval granted		16

Approvals for use of Electrical Equipments etc. in mines were granted during 01.04.2015 to 31.10.2015 is given below:-

Sl. No.	Type of approval	No. of approval granted
1.	No. of field trial/extension	44
2.	Regular approval/extension	122
Total no. of approval granted		166

National Safety Awards (MINES)

13.40 Ministry of Labour & Employment, Government of India instituted National Safety Awards (Mines) in 1983 (for the contest year 1982) with a view to promote a competitive spirit amongst mine operators for the betterment of safety standards in mines and to give due recognition to outstanding safety performance at national level. This award is generally given away by the Hon'ble President of India every year and has generated considerable enthusiasm amongst the Mining community. National Safety Awards (Mines) for the contest years 2011 & 2012 were given away on 20.03. 2015 at New Delhi by the Hon'ble President of India. Finalization of list of awards for the contest year 2013 is under process.

National Conference on Safety in Mines

13.41 The National Conference on Safety in Mines is a tripartite forum at the national level in which the employers' representatives, the trade unions' representatives, the Government represented by Ministry of Labour & Employment, DGMS, various administrative Ministries/ Departments, State Governments, associated institutions, professional bodies, service associations, etc. take part. They review the status of safety in mines and the adequacy of existing measures in a spirit of mutual cooperation. The conference also suggests measures for further improvement in safety, welfare and health of mine workers. The first Conference was held in the year 1958 and the eleventh conference was held on 4th & 5th July 2013 at New Delhi during which three major issues (i) Small Scale Mining, (ii) Safety, health & welfare of Contractual workers & (iii) Surface & underground transportation machinery were deliberated. A number of recommendations of these conferences have been given statutory backing and most of the others have been absorbed in management practices and policies. The conclusions and recommendations drawn

during the conference have already been circulated to the mining industries for compliance.

On-going Plan Schemes

Strengthening of Core Functions of DGMS (SOCFOD):

13.42 This is a continuing plan scheme. The scheme has been formulated by merging three on-going plan schemes of DGMS, namely (i) "Augmentation of S&T Capabilities, Mine Rescue Services and Human Resource Development (S&T) (1975)", (ii) "Strengthening of Machinery for Conduct of Statutory Examinations (SSEX) (2000-01)" and (iii) "Improving Efficiency by Providing Infra Structure Facilities in DGMS (PIF) (2000-01)" along with components like Occupational Safety and Health Surveillance, promotional initiatives and Emergency Response system.

The objectives of the scheme are:

- To render scientific and technological support to the enforcement wing of DGMS.
- To establish Mine Safety and Health Academy with institutes at different places for imparting structured training to DGMS officers and key personnel of the mining industry.
- To provide infrastructure facilities i.e. office buildings and residential complexes, communication facilities and office equipment and furnishing of offices.
- To conduct Occupational Safety, Health and Welfare Survey in mines of unorganized sectors.
- To provide Dedicated Network Facility for Data, Audio-Video and Mail messaging with Online Interactive Communication and Data Processing system (DC & DRC & all Officers).
- To provide and maintain infrastructure facilities including hardware for National Mine Safety

and Health Resource Centre and National Mine Disaster Control and Management Network.

(A) Scientific and Technological Support (S&T)

13.43 This scheme aims at providing in-house scientific support to the officers of DGMS in discharge of their enforcement, regulatory and promotional role. It also provides scientific support to mine operators, workers organization and other institutions concerned with occupational health and safety matters. The activities of the S&T plan scheme covers a wide cross-section of facets of occupational safety and health including occupational hygiene/health, strata control, mine ventilation, mine gases, fires and explosion, mining techniques, mine mechanization, oil and opencast mines safety, standard setting and policy planning.

13.44 The support activities are broadly divided into three categories:

(i) Planned support: This plan support is to be provided to field offices on:

- A current issue which has emerged into an enforcement problem;
- An enforcement strategy calling for development of monitoring equipments or techniques; and
- Monitoring of quality assurance of external organisations in sampling, pre-approval testing and other similar activities.

These activities are to be selected on merit, including improvement of efficiency and safety and future needs.

(ii) Reactive support: Reactive support is proposed to be provided in response to demands from field offices in areas where:

- In-house assessment and analysis of a problem leads to better understanding of

enforcement problem and helps in determining enforcement strategy;

- Support is required on a technical problem without referring to external agency.

(iii) Testing services: This service is to be provided to the field offices as a sample check on quality control standards and in emergency response situation.

Major Programmes: The major programmes of the S&T plan scheme includes:

(i) Occupational Safety:

- Monitoring of implementation of the Technical Standards on support system in Bord and Pillar workings.
- Review of standards on stability of multi-seam workings.
- Review of standards on detection, control, dealing with and protective measures against fire and revision of standards/guidelines.
- Assessment of hazards associated with mine mechanization and standardization of monitoring techniques and control measures.
- Standardization of prototype test(s) houses for testing powered support and hydraulic/friction props.
- Standardization of Ultrasonic Testing Techniques and formulation of Acceptance & Rejection Norms.
- Testing of fire resistant hydraulic oils.

(ii) Occupational Hygiene and Health

- Standardization of techniques for monitoring and control of occupational hazards from noise, air borne dust, mine gases and poor illumination.

- Review and standards of medical examinations.
- Review and standardization of procedures for surveillance of occupational disease already established.

(B) Development of Mines Rescue Services:

13.45 This component of the plan scheme aims at promoting proper rescue services in mining industry. The scheme envisages critical appraisal of design characteristics of rescue apparatus and self rescuers, evaluation of field performance of the same, inquiry into accidents in use of rescue apparatus, inspection of rescue stations/rescue rooms organizing rescue competitions, monitoring formulation of emergency plan by the management of all underground mines and to deal with applications for grant of permissions/approval/relaxation under the Mines Rescue Rules, 1985.

Major Programme:

1. Installation of testing facility for SCBA of Resuscitator.
2. Creation of Rescue
 - ✓ Rescue facilities in the country.
 - ✓ Actual Rescue/Recovery work done in the country.
3. Inspecting of Rescue facilities in the Mines/Rescue Stations/Rescue Rooms etc.
4. Testing of Self-Rescuers.
5. Co-ordination of Mines Rescue Competition.
6. Standard setting, review of emergency plans.
7. Issue of Technical Circular's to the mining industry.

8. Grant of approval/relaxation under the Mines Rescue Rules, 1985.

(C) Human Resource Development:

13.46 This scheme started on modest scale from 01.04.1990. The scheme envisages setting-up of a Mines Safety & Health Academy comprising Institutes at Dhanbad and Nagpur for imparting structured training to the Inspection Officers of DGMS so as to update and upgrade their technical and professional competence and improve their effectiveness in regulatory, enforcement, advisory and promotional roles. The facilities so created would be also utilized for disseminating latest information on mine safety principles and practices amongst the key safety personnel of the mining industry and the Workmen's Inspectors.

Major programmes:

- (1) Development of training schedules.
- (2) Conduct of training programmes.
 - (a) Training of DGMS Officers
 - (i) New Entrants.
 - (ii) Existing Officers.
 - (iii) Special Lectures.
 - (b) Training of Key personnel in Mining Industry
 - (i) Managerial Personnel.
 - (ii) Safety Officers.
 - (iii) Ventilation Officers.
 - (c) Training of Workmen's Inspectors

13.47 During the period 01.04.2015 to 31.10.2015 approvals of equipment, appliances, materials and

machinery granted for use in mines given below:

During the year 2015-16, the following activities were undertaken by S&T Wing:		
ActionPlan	Achievement from April - October, 2015	Remarks
(A) S&T Cell		
1. Mine Environment Surveys	13	
2. Occupational Health Review, Survey & Medical Exam.	05	
3. Ground Control	03	
4. Mine Mechanization (Testing of Machinery Parts)	Nil	
5. Additional jobs:		
(a) FRHF Testing (Fire Resistant Hydraulic Fluid)	Nil	
(b) Gas analysis	27	
6. Organisation of Conference/Workshops	01	
7. Issue of Circulars	06	
(B) Mines Rescue Services cell :		
1. Testing of self contained Rescuer	Nil	
2. Testing of self contained Breathing Apparatus	03	
3. Rescue competition	Nil	
4. Field visits	23	
5. Organization of conference on Rescue/Recovery experience	Nil	
6. Monitoring of first aid competition	Nil	
7. Creation of rescue database on Rescue facilities	Nil	
8. Creation of rescue database on actual Rescue/Recoveries	Nil	
(C) Human resource Development Cell :		
1. Conduct of Training Programs		
(a) DGMS officers	Nil	
(b) Key personnel from mining industry	Nil	
(c) Workmen's Inspectors	Nil	

Approvals of Equipment, Apparatus & PPEs during the 01.04.2015 and 31.10.2015:

Sl. No.	Type of approval	No. of approvals granted
1.	No. of field trial/extension	02
2.	Regular approval/extension	01
Total		03

Mine Accident Analysis and Modernization of Information Database (MAMID)

13.48 This is the restructured plan scheme after merging of the two Plan Schemes of Tenth Plan (2002 -07) namely (i) Study of Mines Accidents and Development of Mines Safety Information System (SOMA) and (ii) Modernization of Information Database in DGMS (MID) as per the Report of Working Group on Occupational Safety & Health for 11th Five Year Plan 2007-12 of Ministry of Labour and Employment, Government of India. Keeping the objective of integration in view, these schemes were merged into one scheme "Mine Accident Analysis and Modernization of Information Database (MAMID)". This Plan Scheme is continued for the 12th Five Year Plan 2012-17. Later, a part of Plan Scheme "e-Governance in Directorate General of Mines Safety (e-DGMS), is merged with the ongoing Plan Scheme MAMID.

Objective of the Scheme:

(A) Mine Accident Analysis and Information Database

- To mitigate risk of disasters and accidents in mines through detailed analysis of accidents and dangerous occurrences using risk assessment and management techniques and activate promotional channels;
- Identification of mines having highest risk of accidents/disasters through detailed investigation into the operating systems and environment in the mine and prepare a Risk Management Plan for such mines for implementation;
- Dissemination of mine information system through various reports, technical instructions/guidelines, circulars on electronic as well as other conventional media;

- Re-engineer work processes to change governance pattern for simplicity, transparency, productivity and efficiency;
- Transform from Process bound System to Computerized Automated System.

Achievement: April, 2015--October, 2015

- Annual Report, 2012 published and publication Annual Report for the year 2013 is under process.
- Standard Note on DGMS as on 01.01.2015 published.
- Published
 - Statistics of Mines in India, Vol. I (Coal), 2012
 - Statistics of Mines in India, Vol. II (Non-Coal), 2012
- Monthly publication of accident statistics and analysis of the accidents
- Risk assessment study & preparation of Safety Management Plan of 08 (eight) identified coal mines and 17 (seventeen) identified Non-Coal Mines have been carried out by mine management.
- 5 (five) Technical Circulars have been issued to mine management for preventing/minimizing similar type of accidents. For this 50 accident reports (coal and non-coal), received from different regions have been carried out.
- All accident reports of enquiry into all fatal accidents were scrutinized. Causes and circumstances leading to these accidents were finalized and compiled for inclusion in DGMS Annual Report.
- Instruction on Accident Investigation has been prepared & circulated within the organization.

This instruction was issued in line with prevailing international practices.

- 30 (Thirty) Awareness Camps have been organized at different zones, regions & sub-regions with a view to disseminate information about latest initiatives and new services taken up by DGMS to its stakeholders.
- One technical session on respirable mine dust assessment & management system in mines has been carried out.
- Exhibition cum Awareness meeting was organized by the Ministry of Labour & Employment on the initiatives of Labour & Employment, at Kedarnath Sahani Auditorium, C block, Civic centre, New Delhi on 25.05.2015. The function was inaugurated by the Hon'ble Minister of State for Labour & Employment (I/C), Shri Bandaru Dattatreya. Directorate General of Mines Safety (DGMS) participated & presented the latest initiatives of DGMS in a stall. The theme of the exhibition was to display good governance by bringing transparency & accountability in enforcement of Labour Laws.



(Exhibition cum Awareness meeting at New Delhi on 25.05.2015)

E-Governance in DGMS

13.48 Development of 5 (five) different software modules for implementing National e-Governance Plan in DGMS for ensuring transparency, accountability, ease of business and its speedy disposal of business have been awarded to a NICSI empanelled vendor. Redesigning & customization of DGMS website is also taken up the vendor.

Latest Initiatives

- Standardization of equipments, materials, personal protective equipments (PPE) framed and opened through general approval system.
- Skill development initiative on risk based system for mines through ILO chest-radiography for Doctors.
- In unorganized sector, public awareness program through inspection & preventive action undertaken in mines & quarries prone to OH hazard like silicosis & Pneumoconiosis under the direction of National Human Right Commission (NHRC).
- Introduction of real time online examination System for First Class Mine Manager's certificates granted under The Coal Mine Regulations, 1957. This measure has ensured transparency and removes the possibility of partiality and further discretion of examiners in awarding marks.

Initiatives in pipeline

- Introduction of realtime online examination system for First and Second Class Mine Manager's certificates granted under the Metalliferous Mines Regulations, 1961. These measures would ensure transparency and remove the possibility of partiality and further discretion of examiners in awarding marks.

- Development of different software modules for implementing National e-Governance Plan in DGMS which ensures transparency, accountability, ease of business and its speedy disposal.
- Project on Multi-centric Studies on Silicosis in Workers of Unorganized Sector Mines to provide epidemiological data on health status including prevalence of silicosis and other dust related disorders among persons employed in the stone mining and processing area for development of guidelines for detection and rehabilitation programme for cases of dust related diseases.
- Legislative Reforms through amendment of the Coal Mines Regulations, 1957; the Metalliferous Mines Regulations, 1961; the Mines Rules, 1955; and the Mines Act, 1957.
- Proposed for inclusion of risk-based inspection system of coal mines in Shram Suvidha Portal.

Career Management and Training (CMT)

13.50 Several officers were deputed for training in important areas such as administrative and financial matters and technical aspects of mining methodology etc. Details of seminar, symposium, workshops and conferences etc., during the period 01.04.2015 to 31.10.2015 is given in **Table 13.8**. The details of national and international trainings attended by DGMS officers during the period 01.04.2015 to 31.10.2015 are given in **Table 13.9** and **13.10**.

National Safety Council (NSC)

13.51 The National Safety Council (NSC), set up by the Ministry of Labour and Employment on 4th March, 1966 is an independent, non-profit making and autonomous society. Its mission is building a national movement on safety, health and environment to prevent and mitigate loss of life,

human suffering and economic losses, and providing support services.

13.52 The management and control of the affairs of the Council are vested in the tripartite Board of Governors. The Board consists of 51 members besides the Chairman who is nominated by the Govt. of India. Headquartered in Navi Mumbai, it is an institution of international repute with an all India network of over 8600 members comprising (i) Corporate Members (Industrial establishments, employers' organizations, professional bodies and institutions) (ii) Trade Union organizations, (iii) Individual Members, (iv) Life Members, and (v) International Members with 18 Chapters across the country.

Important Activities and Services

At the National Level

- Organizing National Level Conferences/ Seminars/Workshops;
- Conducting training programmes – both national level and need-based unit level;
- Conducting E-learning Programmes on various OSH topics;
- Undertaking consultancy services such as Safety Audits, Risk Assessments & HAZOP Studies, Safety Awareness Surveys, Disaster Management services;
- Safety Rating for Factories, Construction Sites, Hospitals, Hotels, Malls and other commercial establishments;
- Developing promotional material like National Safety Calendar, Posters;
- Providing information resources : HSE Diary, Pocket Guides, HSE library.
- Publications such as Technical Manuals, Booklets, reprints of important International

Publications;

- Bringing out periodicals : Quarterly Industrial Safety Chronicle and bi-monthly Industrial Safety News;
- Spearheading National Level awareness campaigns : National Safety Day, Road Safety Week, Fire Service Week and World Environment Day;
- Operating national level NSCI Safety Awards Schemes for (a) Manufacturing (b) Construction, and (c) Micro, Small and Medium Enterprises sectors & holding annual Awards Functions;
- Producing video films on different OSH topics;
- Contributing to development of national safety standards : Chairmanship of BIS Sectional Committee CHD 8 and also member on other Sectional Committees.

At the International Level

- Organizing International Conferences / Seminars/Workshops.
- Cooperation and collaboration with ILO, UNEP, DGUV (Germany), ADPC (Bangkok), JISHA (Japan), NSC (USA), AIHA (USA), KOSHA (Korea), KISA (Korea), European Commission, International Social Security Association (ISSA) and member organizations of APOSHO (Asia Pacific Occupational Safety and Health Organization) of which NSC is a founder-member.
- Participation & presentation at International events & meetings.

Major Activities and Achievements**Collaboration with International Organizations****NSC India and DGUV, Germany**

13.53 NSC signed an MoU with the German Social Accident Insurance (DGUV), Germany in 2010 for 3 years which was renewed for further period of 3 years on 10.10.2013. The main objective of the MoU is to have the mutually beneficial collaboration that will seek to promote safety and health at work and to reduce the occurrence of work related accidents and diseases.

13.54 As part of MoU, following activities were conducted during previous three years i.e. 2012-13 to 2014-15:

- International Project on Return on Prevention (ROP) in 12 selected companies from manufacturing, construction and other sectors in May 2012
- Publication of an interview of DG, NSC in the April-May 2013 issue of the Magazine "DGUV Kompakt".
- National Workshop for Safety Officers in October 2013 in Mumbai.
- Presentation on 'Construction Safety – NSC's Perspective' in the Symposium & Exhibition held on 23-24 September, 2014 organised by DGUV at India Habitat Centre, New Delhi.
- Participated in the Indo-German Dialogue on "OSH in Indian Construction Sector" jointly organized by GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) and DGUV, Germany on 25.09.2014

13.55 In the year 2015-16 the DGUV along with German Social Accident Insurance Institution for the building trade (BG BAU), Germany and Department of Labour, Government of Maharashtra has organized a one-day Symposium and Exhibition on "Occupational Safety and Health in the Construction Industry – Proceeding from a Problem to a Solution" at NCPA, Mumbai on 19.11. 2015. The event was supported by NSC

India, German Consulate General in Mumbai, ISSA – Construction Section, Siemens Ltd., Maharashtra Building and Other Construction Workers Welfare Board. Director, NSC made a presentation in the Symposium sharing NSC's contribution in the field of Construction Safety. Four hundred fifty copies (DVDs) of the film produced by NSC on "Safety while working at height at construction sites" (Hind) were distributed at the event.

NSC India and KOSHA, Korea

13.56 NSC India and KOSHA have entered into a 3-year Agreement (MoU) which was signed on 20th Sept., 2012. The scope of co-operation includes exchange of experts from training, consultancy, seminar / workshop / conference or for research programme on topics of mutual interest and exchange of technical information and material, etc. on OSH. As a part of MoU, Officers from NSC are invited to participate in the International Training Workshop organized by KOSHA.

13.57 In the year 2015-16, two officers from NSC attended Fellowship Training Programme on "Occupational Safety and Health" during 15-21 November, 2015 at KOSHA Headquarter, Korea. The aim of this training programme was to provide participants with the practical knowledge and skills on the occupational safety and health for the prevention of industrial accidents and diseases at workplace.

NSC India and UNEP

13.58 As a part of its long active and close co-operation, NSCI was invited by the UNEP to participate in the Training Workshop on Risk Assessment and Risk Management" for three days between 30 July to 1 August, 2014 and make presentations. The workshop was organized by Central Environmental Authority (CEA) Sri Lanka, jointly with UNEP, ADPC and Responsible Care Inc, New Zealand. The Workshop was attended by

Senior Officials from Govt. Departments. Director, NSC attended the workshop and delivered four lectures on 'Overview of Risk Assessment', 'Risk Acceptance Criteria', 'Risk Prioritization & Risk Communication' and 'Decision Making'. Interactive sessions and quiz was also conducted by her during the workshop.

13.59 The Centre for Chemical Process Safety (CCPS) of American Institute of Chemical Engineers (AIChE) in collaboration with UNEP organized a 2-day Global Summit on Process Safety on 15-16 Dec., 2014 at Mumbai. DG, NSC made a presentation on 'NSCI Experience in APELL Implementation' which was highly appreciated by the delegates and UNEP.

13.60 During the year 2015-16, on the invitation of UNEP, Deputy Director, NSC participated in the 'Training of Trainers Regional Workshop on APELL' organized by ADPC in partnership with UNEP from 19-21 August, 2015 at Bangkok, Thailand. He made two presentations titled "Implementation of APELL in India" and "Community Preparedness Plan – Indian Experience" in the workshop.

NSC India and JISHA, Japan

13.61 As a part of the ongoing close cooperation with Japan Industrial Safety & Health Association (JISHA), NSC is invited by JISHA to depute an officer to attend their seminars at Japan. During the year 2013-14, one officer from RMC Readymix (India) was nominated by NSC to attend the seminar on "KYT (Hazard Prediction Training) & OSHMS in Japan" in March, 2014.

Participation in the International Events

13.62 During last three years i.e. 2012-13 to 2014-15, NSC has participated in several international events, as below :-

- APOSHO-27 hosted jointly by Association of Safety Practitioners of Philippines Inc. (ASPPI)

and Safety Organisation of the Philippines Inc. (SOPI) from 18-21 Sept., 2012 at Cebu, Philippines. The theme of the Conference was "Safety and Health in the Workplace : A Shared Value Across Regions".

- APOSHO-28 hosted by National Safety and Health Council of Indonesia (NSHCI) from 8-12 Oct., 2013 at Jakarta, Indonesia. The theme of the Conference was "Enhancing Safety Culture, Striving for Sustainability".
- APOSHO-29 hosted by The Safety and Health at Work Promotion Association Thailand (SHAWPAT) during 2-5 July 2014 in Bangkok, Thailand.
- A validation Workshop of an Expert Advisory Group for the revision of the current APELL Handbook and for development of its 2nd edition held in UNEP Paris Office on 10.12.2013.
- One Officer from NSC attended a Seminar on "KYT (Hazard Prediction Training) & OSHMS in Japan" at Tokyo, Japan in March 2013.

World Congress on Safety and Health at Work in August 2014

13.63 XX World Congress on Safety and Health at Work was held during 24-27 August, 2014 in Frankfurt, Germany. A two member delegation from NSC participated in the following activities of the World Congress.

- Organized a Symposium on "New Forms of Employment & Work Organization" under the main theme of "Diversity in the World of Work".
- Made a presentation on "Enhancing prevention culture through voluntary initiatives, NSC INDIA experience" in KOSHA Symposium.
- NSC had submitted its film "Safety while

working at height at construction sites" in the International Media Festival, which was shortlisted for award and screened during the festival.

- DG, NSC was interviewed by officials of Radio Frankfurt on the status of OSH in India.

30th Asia Pacific Occupational Safety and Health Organisations (APOSHO) Conference & AGM in July 2014

13.64 NSC is one of the Founder Members of APOSHO. A high ranking 5-member official delegation from NSC led by Shri Satish Reddy, Chairman, NSC attended the APOSHO-30 Conference, AGM and Meetings of the APOSHO Committees.

13.65 In the year 2015-16, APOSHO-30 was hosted by Korea Occupational Safety and Health Agency (KOSHA) concurrently with 31st ICOH (International Conference Occupational Health) from 31 May to 5 June, 2015 in Seoul, Korea. The theme of the Conference was "Harmony for Occupational Safety and Health". The Safety and Health Exhibition was also organized along with the Conference. NSC had put up a stall in exhibition to display NSC's activities and the capacity to host national and international conferences.

13.66 During the APOSHO AGM DG, NSC made a brief presentation about NSC's strengths & capabilities and India as the tourist destination. A two-page leaflet about APOSHO 31 was printed and distributed among the participants at the APOSHO 30 AGM.

13.67 As per the APOSHO tradition, the APOSHO flag was handed over to the Chairman, NSC at the conclusion of the AGM. The Chairman NSC will be the Chairman, APOSHO for the year 2015-16. NSC will host the APOSHO-31 in the April 2016 in New Delhi.

National Level Collaborations / Associations

NSC and SAIL Safety Organization, Ranchi

13.68 NSC has signed MoU with Steel Authority of India Ltd. in the year 2011 which was consecutively renewed every year i.e. on 21.05.2012, 03.06.2013 and 26.05.2014. The objective of the MoU is to strengthen the long and active collaboration and co-operation in the field of safety training, audits, emergency preparedness, promotion of various national level campaigns, etc. During last three years i.e. 2012-13 to 2014-15, 23 assignments have been undertaken under the MoUs.

13.69 Further, during the year 2015-16 (Upto November, 2015) 7 safety audits have been carried out at various plants and mines of the SAIL.

NSC and THDCL

13.70 There has been an active co-operation between the Tata Housing Development Co. Ltd., Mumbai and NSC in the areas of safety training, audits, promotion of various national level campaigns, etc. With a view to further strengthening this collaboration, a one-year MoU was entered between the two organizations on 23.05.2013.

13.71 As a part of the MoU, NSC has produced 3 films on different aspects of Construction Safety. NSC has undertaken more than 20 safety audits, preparation of emergency plans, mock drill exercises and training programmes on several topics including occupational health and ergonomics for a number of Tata Group companies.

NSC and Chief Labour Commissioner (Central), Ministry of Labour & Employment

NSC has been training officers of Chief Labour Commissioner (Central), Ministry of Labour & Employment for last 12 years. In July 2014, NSC

has signed a 2-year MoU with the Office of Chief Labour Commissioner (C) for conducting training programmes for their officers for implementation of provisions under BOCW Act & Rules. In Feb. 2015 two programmes were conducted on 'Enquiry on Accidents' and 'Safety, Health & Welfare under BOCW Act & Central Rules'. In all 40 officers attended the programmes.

NSC and CII Naoroji-Godrej Centre of Excellence

13.72 Keeping in view the suggestions of the Board from time to time to collaborate with leading institutions / industry associations, NSC has signed a one-year MoU with the CII Naoroji-Godrej Centre of Excellence (NGCE) on 16th Feb, 2015. The broad objective is to create a talent pool of trained workforce for industry to support excellence in Industrial Safety, share best practices nationwide and address issues related to Industrial Safety. As a part of the MoU, NSC has organized 3 two-day Training Programmes on different OSH topics at CII Naoroji-Godrej Centre of Excellence, Vikhroli, Mumbai in March, June and October 2015. Total 73 participants attended these programmes.

13.73 Subsequently, CII NGCE has set up a 12-Member Task Force on Industrial Safety where DG, NSC is the Co-Chairman. So far two meetings of the Task Force attended by DG on 29.09.2015 and 09.12.2015 at Mumbai

NSC and Draeger Safety (I) Pvt. Ltd.

13.74 National Safety Council (NSC) signed an MoU on 19.11.2014 with Draeger Safety (I) Pvt. Ltd., Mumbai and launched 'Mission Suraksha' Safety Awareness Campaign aiming at increasing awareness about safety amongst the Industrial Workforce in India. M/s. Draeger Safety has designed a road-show truck (mobile van) which travels into interior parts of the country with a view to educate the workers regarding workplace hazards and correct use of Personal Protective

Equipment and other protective equipment. As per MoU, NSC Name and Logo will be prominently displayed on the roadshow truck and will also be included in roadshow communication materials. The NSC safety awareness films are also screened in the road show truck during its visits at various places.

Association with Electronic / Print Media

- On the occasion of 44th NSD, Doordarshan Kendra Sahyadri Channel invited DG for a live interview during the evening (9.30 p.m.) Marathi News on 04.03.2015 so as to create mass awareness on the significance of NSD. A number of safety issues were discussed during the interview (about 12 minutes duration) including establishment and role of NSC in prevention of accidents, responsibility of industries and individual's role regarding safety.
- On the same day (04.03.2015 - 1.00 to 2.00 pm), DD Sahyadri had also invited Shri M. M. Kulkarni, Director for an hour-long live programme 'Sakhi Sahyadri' where he interacted with audience through phone calls. He answered number of questions asked by audience from different cities across Maharashtra on importance of NSD, safety at workplace, travel safety, school safety, home safety, electrical safety, etc.
- For the first time, NSC associated as the knowledge partner with The Economic Times, a leading newspaper of the Times Group in its Special Feature "ET Focus – Safety at Workplace & Home" published on 13th April 2015 coinciding with the celebrations of 44th NSD/Week Campaign. An interview of DG, NSC and three articles on different safety aspects – one each contributed by DDG and two Directors, NSC were published.
- The Economic Times has set up an Advisory Board for guiding and deciding activities to

promote Road Safety. DG, NSC is a member on the Board. As part of this initiative, ET had organized "The Economic Times Road Safety and Transport Management Summit 2015" on 16th June, 2015 at Mumbai. Director, NSC participated in the panel discussion during the Summit. The theme for the Summit was 'Safe System – Safe Road – Safe Citizen'.

Participation in National Level Events / Activities

Inquiry into the accident at the Fireworks Factory at Sivakasi, TN, constituted by Govt. of India

13.75 There was a serious accident occurred on 05.09.2012 at the fireworks factory of M/s Om Sakhti Fireworks Industries at Sivakasi, Tamil Nadu, causing loss of lives and property and injuring many others. The Ministry of Commerce & Industry, Dept. of Industrial Policy and Promotion appointed a four-member Inquiry vide its Order dated 12 Sept. 2012 to hold an inquiry into the above accident and submit a report to the Government. DG, NSC was appointed as an Assessor for the Inquiry vide Deptts. Order dated 28 Sept. 2012.

13.76 The Inquiry held four meetings at Sivakasi, Mumbai, Nagpur and Delhi and report was submitted to the Government on 24.01.2013.

Experts Group on Development of a Chemical Safety Rating System for Chemical Industry in India

13.77 As invited by the National Authority for the Chemical Weapons Convention of India, DG NSC attended the Experts Meeting on Development of a Chemical Safety Rating System for Chemical Industry in India organized by the Cabinet Secretariat on 25-26 Feb. 2013 at New Delhi. The meeting was chaired by Chairman of the National Authority for the Chemical Weapons Convention of India.

Participation in the Meeting of Standing Fire Advisory Council

13.78 DG, NSC attended 36th Meeting of the Standing Fire Advisory Council organized by Fire Services, Civil Defence & Home Guards, Ministry of Home Affairs, Government of India on 31st October and 1st November, 2014 at Goa. Taking the opportunity of the occasion, DG also made a presentation about the activities and services offered by NSC at the meeting.

Participation in the Pollution Control Committee of Daman

13.79 Director, NSC is one of the members on the 'Pollution Control Committee' of Daman Diu & Dadra Nagar Haveli. He attends the meetings regularly.

Participation in the State Expert Appraisal Committee (SEAC-1)

13.80 Director, NSC has been nominated as a member of the above Committee on January, 2014. It would appraise and regulate all projects related to industries, mining, irrigation and others (excluding building projects) falling under category B of the EIA notification of 2006 in the Maharashtra State. It will assist the State Level Environment Impact Assessment Authority (SEIAA), Maharashtra. He attends the meetings regularly.

Participation in the BIS Committee meetings

13.81 DG NSC is the Chairman of CHD: 08 (Occupational Health and Safety Sectional Committee) of the Bureau of Indian Standards. During the period two meetings were chaired by DG which were held on 16.04.2013 and 21.07.2014 at Mumbai and Delhi respectively.

UL South Asia Fire Safety Council Meet 2015

13.82 UL India Pvt. Ltd. organized seventh Annual UL South Asia Fire Safety Council Meet 2015 at Taj

Mahal Hotel, New Delhi during 07-09 October, 2015. DG, NSC participated in the Meet and made a presentation on 'Safe Transport of Petroleum Products'.

Association with National Civil Defence College, Nagpur

13.83 On the invitation from National Civil Defence College (NCDC), Ministry of Home Affairs, NSC associated with them in organizing National Seminar on Disaster Management with a theme as "Integrating Civil Defence with Occupational Safety" held during 04-06 November, 2015 at Nagpur. DG, NSC participated as a Special Guest and delivered a Keynote Address in the inaugural function of the seminar on 04.11.2015.

Nomination on State Level Advisory Committee of Bihar State Disaster Management Authority

13.84 The Bihar State Disaster Management Authority nominated the DG, NSC as one of the Members of the State level Advisory Committee on Human Induced Disaster established by it to advise and support on various issues relating to disaster management and risk reduction and give recommendations on related issues. DG attended the first meeting of the Advisory Committee held on 31.10.2015 at Patna.

Safety, Health & Environment Training

13.85 Through 'HSE training', awareness about occupational health, safety and environment at workplace is created among workers and other categories of personnel including worker-members of safety committees and representatives of trade union organizations. As training is one of its core activity, NSC has continued to lay emphasis on designing and developing training courses as per the emerging needs of the industry.

13.86 During the year 2012-13, 2013-14 and 2014-15, a total of 70 national level courses attended by 2619 participants were organized.

Further, 186 unit level, need-based in-plant-programmes were also conducted for 7699 personnel from various types of industries.

13.87 In the year 2015-16 (Upto November, 2015) 13 national level courses attended by 569 participants and 31 unit level, need-based in-plant programmes covering 54 training-days were conducted for 968 different categories of personnel from various types of industries. Further, 8 specialized training programmes and 25 unit level need-based in-plant programmes will be conducted during the remaining period of the year. To improve safety training activities, Council organizes Consultative Meetings from time to time.

Distance Learning Programme

13.88 On 04.03.2014, NSC launched its first E-learning Course on "Safety at Construction Sites" at NSC auditorium. The course is meant for Supervisory and Managerial personnel at construction sites and is aimed at enhancing the Safety & Health Competency needed for timely, cost effective and accident free completion of construction projects. So far four batches of the course have been completed and total 254 participants registered and out of them 233 participants received the certificate of successful completion. The course will commence its fifth batch on 28 December, 2015.

13.89 NSC developed, designed and launched its second E-learning Course on "Chemical Safety" on 04.03.2015 at NSC Headquarters by the hands of Shri Rajnish Prakash, Chairman & Chief Executive of Heavy Water Board. The course is meant for Supervisory and Managerial personnel working in chemical industries involving hazardous processes as defined under Section 2 C(b) of the Factories Act 1948. So far two batches of the course have been completed and total 118 participants registered and out of them 105 participants received the certificate of successful completion. These courses are highly appreciated by the participants.

Safety Consultancy Services

13.90 As a pioneer in OSH audits and other consultancy services, NSC has been conducting safety audits of various types of occupancies, electrical & fire safety audits, risk assessment, HAZOP studies, preparation & review of on-site emergency plans, preparation of safety reports, health impact assessment, safety awareness survey, etc.

13.91 A total of 378 consultancy services have been provided during the year 2012-13, 2013-14 and 2014-15. Some of the companies where consultancy services were provided include – SAIL, GAIL, ACC, NTPC, Bajaj Auto, UPL Ltd., TATA, HPCL, Jindal Steel, Godrej, IOCL, L&T, ONGC, RCF, Reliance, Super Religare Laboratories, Nuclear Fuel Complex, etc. The recommendations provided by NSC in the Safety Audit report are the source of improvement in eradicating the existing hazards and putting forth a healthy environment at workplaces.

13.92 In the 2015-16 (upto November, 2015) in all 60 consultancy assignments were carried out. Some of the companies where consultancy services were provided include – Lupin Ltd., SAIL, UJVN Ltd., HPCL, NTPC, BHEL, Maharashtra State Power Gen. Co. Ltd., SCOPE, IOCL, Cement Corpn. of India Ltd., etc. Further, around 25 consultancy assignments will be undertaken till 31.03.2016.

13.93 During the year, on the request of Usha Breco Ltd., for the first time NSC has undertaken Safety Audit of Ropeways of important pilgrimage places in India. The main purpose was to look into the safety systems embedded in ropeway operation & maintenance management. These audits scrutinize whether the management is taking care in testing the ropeways, the mechanical guarding system in the sitting arrangements, etc. Six Ropeways located in Hardiwar, Gujarat, Kerala and Odisha were audited.

NSCI Safety Rating System

13.94 NSC has launched in 2014-15 NSCI Safety Rating System (NSRS) for Factories, Construction Sites, Hospitals, Hotels, Malls and other commercial establishments – to evaluate the safety, health and environmental (SHE) status and compare the Establishments with the same yardsticks. It is an in-depth assessment on 8 key elements, comprising of about 70 sub-elements at par with IS 14489 : 1998 aimed at achieving excellence in the safety management system. It uses questionnaire with detailed guidance for evaluation. So far, four assignments have been completed.

Disaster Management

13.95 During the years 2012-13 and 2013-14 following activities were carried out :

- A 2-Day National Workshop on “Disaster Management” was organized in collaboration with NSC Chattisgarh Chapter at Bhilai from 29-30 August, 2012. Total 54 participants were attended from various organizations.
- One day in-plant training programme on “Mock Drill” was conducted at The Associated Building Co. Ltd. Mumbai on 19.07.2012.
- Prepared Emergency Evacuation Plan for National Centre for Performing Arts, Mumbai on 17.07.2015.

Production Video Films

13.96 NSC has produced the following safety films during the three year period 2012-13 to 2013-14:

- 'Electrical Safety at Construction Sites' in Hindi (Duration : about 38 min.)
- Scaffold Safety at Construction Sites' in Hindi (Duration : about 40 min.)

- Lifting Equipment Safety at Construction Sites' in Hindi (Duration : about 47 min.)

National Level Awareness Campaigns

National Safety Day (NSD) Campaign

13.97 To commemorate the foundation day of the National Safety Council on 04.03.1966, NSC designs and develops a wide variety of safety promotional material viz., badge, banners, posters, stickers, pocket guides and utility articles with appropriate safety message to help its member-organizations to observe and sustain awareness on importance of HSE and highlights current issues at the national level. This campaign celebrated with great enthusiasm and on a large scale throughout the country with different theme every year.

13.98 The Campaign always receives full support from the Ministry of Labour & Employment. Hon'ble Union Minister of Labour & Employment writes D.O. letters to the Labour Ministers of all States / Union Territories requesting them to advise the concerned agencies in their States/UTs to ensure that the Campaign is organized in a befitting manner. Also the Joint Secretary, writes D.O letters to the Labour Secretaries of all States / Union Territories requesting them to advise all concerned agencies in their States / UTs to ensure that the Campaign is organized in a befitting manner. He also writes letters to the Director Generals of Doordarshan and All India Radio requesting them to give adequate coverage to various events / activities organized on the occasion. Every year on an average more than 1400 organizations and about 10,00,000 employees directly participate in National Safety Day/Week Campaign.

44th NSD / Week Campaign - 2015

13.99 The 44th National Safety Day/Week Campaign 2015 was celebrated with great enthusiasm throughout the country with the theme

"Build a Safety Culture for Sustainable Supply Chain".

13.100 The NSD Campaign-2015 received full support from the Ministry of Labour & Employment. The Hon'ble Union Minister of Labour & Employment on 02.01.2015 addressed to the Labour Ministers of all States/Union Territories has requested them to advise the concerned agencies in their States/UTs to ensure that the Campaign is organized in a befitting manner.

Special Efforts to Promote the Campaign

13.101 Educational institutions play a cardinal role in consolidating safety & health movement at the national level. To make the Campaign comprehensive and successful, educational institutions including engineering colleges, industry associations, construction industries, CIFs, etc. are appealed to take part actively in the Campaign to propagate the safety awareness. Some of the State Chapters also played a key role in strengthening the NSD movement.

13.102 On invitation by our Member organizations, most of the Technical officers of the Council participated either as Chief Guests or for making presentations in the functions organized by them on the occasion.

13.103 For the NSD Campaign – 2016, NSC will appeal to the members as well as the non-members to celebrate the campaign on a wider scale.

Fire Service Week Campaign

13.104 The Fire Service Week (FSW) is observed nation-wide under the guidance of the Fire Adviser, Ministry of Home Affairs, during 14-20 April every year in remembrance of the lives lost in the devastating fire and explosions on 14.04.1944 at the Victoria Dock in the Bombay Port and to highlight the importance of fire prevention and

protection. NSC promoted the observance of FSW 2015 by bringing out a special folder containing fire safety related Guide Book, posters, Video CDs and banners with safety messages in English and Hindi with the different theme every year. In addition to the safety promotional material as mentioned above, the Council also organizes Training Courses.

FSW-2015 Campaign

13.105 NSC promoted the observance of Fire Service Week (FSW)-2015 Campaign nation-wide during 14-20 April, 2015. To facilitate the members and patrons in effectively observing the FSW-2015, NSC brought out a variety of promotional material with safety messages including Video CDs on 'Fire Safety in Road Transportation of Hazardous Materials' in English. The theme for this year was "To Prevent Fire : Adopt Housekeeping Practices & Approved Electrical Appliances". In addition, the Council has also organized 14 one-day Inplant Training Courses on "Fire Safety" which was attended by over 400 participants.

World Environment Day Campaign

13.106 The World Environment Day (WED) celebrated on 5th June every year as established by the United Nations, General Assembly in 1972 is a people's event and inspires action by governments, industries, community groups and individuals to improve the environment with different theme every year. It is a unique opportunity to raise awareness on environment and mobilize action by all stakeholders. To help the organizations in observing the WED, NSC promoted the campaign by bringing out a variety of promotional material in English and Hindi including environment day badge, banners, posters, stickers, pocket guides, booklets and environmental information package relevant to the respective theme of every year.

WED – 2015 Campaign

13.107 NSC continued to promote the World Environment Day (WED) Campaign this year also (i.e. 5th June 2015). The theme of the Campaign as selected by the UNEP was “Seven Billion Dreams. One Planet. Consume with care”.

13.108 As a part of the Campaign, the Council has designed and brought out a variety of promotional material in English and Hindi including an Information package containing pocket booklets & pocket guides; posters, stickers, banner on the theme to enable our members and patrons to organize the Campaign effectively.

Road Safety Week (RSW) Campaign

13.109 The Road Safety Week spearheaded by the Ministry of Road Transport and Highways, is observed throughout India from 1–7 January, every year. NSC has also started supplementing Government's efforts in promoting this Campaign from the year 2011. For the RSW Campaign, NSC designs and develops a variety of promotional material with safety messages which included posters on Road Safety; a banner with the Theme decided by the Ministry of Road Transport and Highways, film on Road Safety and pocket guides on transportation safety / road safety related subjects.

RSW-2015 Campaign

13.110 The theme for RSW-2015 developed by NSC was “Speed Thrills – But it Kills”. To assist our members & patrons in organizing the Campaign, NSC is designed, developed and brought out various promotional materials such as cloth banner, safety posters, pocket guides with safety messages on related subject and also made available the existing safety films on “Safe Driving for Truck Drivers” and “Rasta - Safe Driving for Two & Four Wheeler Drivers”.

13.111 For the RSW-2016 Campaign, NSC will appeal to the members as well as the non-members to celebrate the campaign on a wider scale.

National Safety Calendar

13.112 A National Safety Calendar with appealing original messages suited to the Indian culture along with one-page information sheet is brought out by the council every year to support safety awareness and educational programmes. A multi-coloured 8-sheet Safety Calendar depicting important aspects on industrial safety, fire prevention and protection, environment protection, road safety and home-based situations through cartoons is developed every year. Also calendar carries Information Sheet on different OSH topics every year. Over 2.9 lakh copies are printed for distribution among member-organizations and patrons every year.

National Safety Calendar – 2016

13.113 For the year 2016, the NSC in its efforts to protect environment has reduced the number of sheets from 7 to 4 for the multi-coloured Calendar-2016 and depicted important aspects on industrial safety, construction safety, home safety, fire prevention, road safety and environment protection through cartoons. This year also cartoons are designed by Shri Prabhakar Wairkar, an eminent cartoonist. The information sheet of the Calendar-2016 is devoted to “Safe Use of Mobile Phones”. Over 2.90 Lakh copies are proposed to be printed for distribution amongst member-organizations and patrons.

HSE Diary

13.114 NSC has been bringing out Health, Safety and Environment (HSE) Diary, since 1998 with the objective of promoting and propagating useful information on HSE topics for day-to-day reference, besides the date pad. The topics include HSE legislation & policy, chemical safety,

construction safety, electrical safety, disaster management, environment, health, mine safety and road safety, etc. Over 30,000 copies of HSE Diary are printed for distribution among member-organizations and patrons.

HSE Diary – 2016

13.115 This year also over 30,000 copies of HSE Diary-2016 are proposed to be printed covering topics like HSE legislation & Policy, construction safety, electrical safety, etc. for distribution amongst member-organizations and patrons.

Library of Books and Periodicals

13.116 NSC maintains a good library of books and periodicals accessible to its members and employees. Its collection includes over 3,285 technical books, manuals, reports, handbooks, codes, standards, etc. in the areas of safety, health and environment and related subjects. Every year, new titles are being added to the library. Some of the worth mentioning during the year 2012-13, 2013-14 and 2014-15 includes – Patthar Khadan Udyog Me Suraksha aur Swastha (ILO, New Delhi); Chemical Process Safety: Fundamentals with Applications (Person Edu. Inc., Boston); 3 volumes of Accident Prevention Manual (Engineering & Technology, Administration & Program and Environmental Management), NSC, USA; Safety at Work – Routledge Taylor & Francis Group, London; National Electrical Code 2011, BIS; Motor Vehicle Laws, New Delhi.

13.117 NSC also receives periodicals from reputed international and national organisations viz. National Safety Council - USA, Bureau of Indian Standards, Indian Chemical Council, Builders Association of India etc.

NSCI Safety Awards

13.118 Aimed at giving recognition to the attainment of consistent level of achievements in OSH performance and OSH management systems

by industrial undertakings, NSC has been operating national level Safety Award Schemes for manufacturing, and construction and MSME sectors from the Awards Years 1998, 2005 and 2009, respectively. The Schemes for NSCI Awards for all the three sectors is being announced every year in January-February through circulars to the members and non member organizations as well as on NSC'S website. An Awards Committee constituted by the NSC Board of Governors assesses the applications by applying rigorous criteria in a four-stage process.

NSCI Safety Awards Functions

- The Awards Function for 2012 was held on 04.10.2013 at SCOPE Complex, New Delhi. Shri Arun Kumar Sinha, IAS, the then Additional Secretary, Ministry of Labour and Employment was the Chief Guest. He gave away the Awards to 41 units from manufacturing sector, 12 construction sector units and 15 units from MSME Sector.
- The Awards Function for 2013 was held on 27.10.2014 at Hotel Hyatt Regency Mumbai. The Awards were given away at the hands of the then Hon'ble Union Minister for Steel, Mines and Labour & Employment, Shri Narendra Singh Tomar. He gave away the Awards to 41 units from manufacturing sector, 12 construction sector units and 21 units from MSME Sector.

The Awards Function for 2014 was held on 12.03.2015 at SCOPE Complex, New Delhi. Shri Bandaru Dattatreya, Hon'ble Minister for State (Independent Charge), Labour & Employment gave away the Awards to 42 units from manufacturing sector, 9 construction sector units and 15 units from MSME Sector.



NSCI Safety Awards-2015

13.119 The schemes for NSCI Awards 2015 for all the three sectors were announced on 31.03.2015 through the websites of NSC as well as circulars to the members and other non-member organizations. Applications received for manufacturing, construction and MSME sectors are being assessed and the result declared.

Activities of NSC Chapters

13.120 Besides the above activities/ services provided by the NSC Hqs., the 18 Chapters also provide a wide range of safety activities/ services at the State and the local levels, particularly in regional languages.

Celebration of the Golden Jubilee Year by NSC (1966-2016) & Hosting of APOSHO-31 AGM and Conference by NSC in India in 2016

13.121 NSC has entered into the 50th year of its existence and is celebrating the Golden Jubilee Year from 04.03.2015 till April, 2016. The Inauguration of the Golden Jubilee Year Celebration was held along with Awards Function on 12.03.2015 at New Delhi by the hands of Shri Bandaru Dattatreya, Hon'ble Minister of State (Independent Charge), Labour & Employment, Govt. of India. During the function a Commemoration book "Fifty Glorious Years" and a

specially designed logo with theme line were released.

13.122 NSC also had organized training programmes / seminars / workshops on different topics in collaboration with CII Naoroji-Godrej Centre of Excellence, Draeger Safety India Ltd., L&T, GAIL, NTPC and DGUV and also conducted two training programmes for school children.

13.123 NSC will host the APOSHO-31 Conference and AGM in 2016 in India, which is also proposed to be marked as concluding event of the Golden Jubilee Year Celebrations. The APOSHO 31 Conference and the AGM will be held during 4-7 April 2016 at New Delhi. The theme for the Conference is "Safety, Health & Environment – Shared Vision, Collective Action". The preparations for the event are in progress. The necessary approvals / NOCs have been received from the Ministry of Labour & Employment, Ministry of Home Affairs and Ministry of External Affairs for hosting this international event.

13.124 A separate website has been launched: www.aposho-31.org. The Vigyan Bhavan, New Delhi has been booked as a venue for the Conference. The Conference Programme will have 3 plenary and 12 concurrent sessions covering various sectors and subjects on OSH. A number of national and International speakers have been identified for presenting their paper during the Conference. There will be an exhibition along with the Conference where more than 25 exhibitors will showcase their products and services.

Table 13.1

Growth of Mining Activities in India

Year	No. of reporting mines			Value of minerals (in Million Rupees)			Aggregate H.P. (in 000s)			Explosives used (in 000 tonnes)	
	Coal	Metal	Oil	Coal	Metal	Oil	Coal	Metal	Oil	Coal	Metal
1997	580	1834	34	193877	43758	40813	5314	2016	570	232.7	43.4
1998	594	1864	37	205307	45286	53136	5399	2020	602	247.0	47.1
1999	598	1957	44	219101	46415	83982	5660	2147	744	267.6	49.8
2000	595	2022	45	234531	53111	92954	5561	2371	757	290.5	55.4
2001	568	1907	43	261082	54032	106747	5586	2190	778	292.6	55.8
2002	567	1870	42	286390	64965	123326	5432	1997	757	315.3	55.6
2003	562	1761	49	299954	77605	131897	5677	1950	747	309.8	63.7
2004	560	1764	47	322425	104283	166083	5728	2336	685	334.0	70.5
2005	569	1835	50	371391	133417	230586	5415	2495	701	297.1	80.7
2006	568	1720	44	374671	162160	370657	5954	2496	468	345.3	95.1
2007	567	1770	49	419279	235351	256944	5842	2646	457	353.0	97.8
2008	569	1904	67	481635	289354	294290	5935	2857	845	395.3	110.7
2009	583	2002	74	581240	325453	351652	6248	3309	842	461.0	101.7
2010	592	1961	82	618357	434283	404801	6362	3310	851	493.2	97.2
2011	601	1956	85	666415	419109	399397	6809	3801	936	503.5	98.2
2012	582	2148	86	744934	448843	492060	6936	4101	854	474.6	102.2
2013*	605	2230	88	1085239	423740	565656	7557	4104	1014	523.6	100.2

*Provisional

Table 13.2

Year	Trend of Accidents in Mines					
	Number of Accidents in Coal Mines			Number of Accidents in Non-Coal Mines		
	Fatal	Serious	Total	Fatal	Serious	Total
2001	105	667	772	71	199	270
2002	81	629	710	52	205	257
2003	83	563	646	52	168	220
2004	87	962	1049	57	188	245
2005	96	1106	1202	48	108	156
2006	78	861	939	58	78	136
2007	76	923	999	56	79	135
2008	80	686	766	54	83	137
2009	83	636	719	36	94	130
2010	97	480	577	54	61	115
2011	65	533	598	44	82	126
2012	79	536	615	36	45	81
2013	77	456	533	58	52	110
2014*	69	380	449	42	49	91
2015*	57	230	287	37	28	65

* Data for the year 2014 & 2015 are provisional and are up to 31.10.2015.

Table 13.3

Trend of Accidents in Coal Mines – Causewise

Causes	Number of Fatal Accidents						Number of Serious Accidents					
	2010	2011	2012	2013	2014*	2015*	2010	2011	2012	2013	2014*	2015*
Fall of Roof	15	11	5	8	10	3	17	16	21	17	18	6
Fall of Sides	6	2	6	2	2	4	36	23	20	19	17	8
Other Ground Movements	1	2	0	2	1	0	0	0	1	0	0	1
Winding in Shafts	0	1	0	0	0	0	0	14	4	3	5	2
Rope Haulage	3	3	2	3	1	1	37	54	48	42	33	17
Dumpers, Trucks, etc.	34	23	27	29	15	14	22	24	20	22	15	10
Other Transportation Machinery	4	2	3	1	1	0	13	11	8	9	2	5
Non-Transportation Machinery	7	6	14	12	14	9	24	33	23	27	25	14
Explosives	2	1	3	0	2	0	5	3	0	1	3	2
Electricity	8	5	3	7	1	6	3	1	3	2	3	2
Gas, Dust, Fire, etc.	1	0	3	0	1	0	0	0	1	0	2	1
Fall of Persons	6	1	8	8	3	3	133	167	168	135	129	80
Fall of Objects	4	4	1	3	2	3	84	74	87	88	59	38
Other Causes	6	6	4	2	16	14	106	113	132	91	69	44
Total	97	65	79	77	69	57	480	533	536	456	380	240

* Data for the year 2014 to 2015 are provisional and data for 2015 are up to 31.10.2015.

Table 13.4

Causes	Trend of Accidents in Non-coal Mines- Cause wise											
	Number of Fatal Accidents						Number of Serious Accidents					
	2010	2011	2012	2013	2014*	2015*	2010	2011*	2012	2013	2014*	2015*
Fall of Roof	0	0	3	2	4	1	1	2	5	2	0	2
Fall of Sides	14	7	10	13	6	4	0	3	3	0	0	0
Other Ground Movements	0	0	0	0	0	0	0	0	0	0	0	0
Winding in Shafts	0	1	0	1	2	1	2	2	3	0	3	0
Rope Haulage	0	0	0	0	0	0	0	0	0	0	0	0
Dumpers, Trucks, etc.	9	11	4	8	8	8	2	4	3	6	4	0
Other Transportation Machinery	3	0	1	3	0	2	3	6	0	0	2	1
Non-Transportation Machinery	5	10	5	4	4	2	10	15	8	12	11	4
Explosives	3	4	4	2	1	0	1	0	1	0	0	0
Electricity	1	0	0	2	3	0	2	3	0	0	2	1
Gas, Dust, Fire, etc.	0	0	0	3	0	1	2	0	0	0	3	1
Fall of Persons	6	5	5	9	8	10	13	22	8	11	11	5
Fall of Objects	8	5	3	8	2	4	16	18	12	16	9	7
Other Causes	5	1	1	3	4	4	9	7	2	5	4	7
Total	54	44	36	58	42	37	61	82	45	52	49	28
* Data for the year 2014 to 2015 are provisional and data for 2015 are up to 31.10.2015.												

Table 13.5A										
Accidents and resultant casualties in mines										
Year	Coal					Non-Coal				
	Fatal Accident			Serious Accident		Fatal Accident			Serious Accident	
	Acc	Killed	Inj	Acc	Inj	Acc	Killed	Inj	Acc	Inj
2001	105	141	14	667	706	71	81	8	199	200
2002	81	97	15	629	650	52	64	3	205	206
2003	83	113	12	563	578	52	62	16	168	169
2004	87	96	14	962	977	57	64	9	188	194
2005	96	117	19	1106	1119	48	52	4	108	109
2006	78	137	15	861	876	58	71	9	78	79
2007	76	78	77	923	940	56	64	13	79	92
2008	80	93	16	686	693	54	73	35	83	85
2009	83	93	14	636	646	36	44	3	94	101
2010	97	118	23	480	488	54	91	5	61	63
2011	65	67	10	533	546	44	50	9	82	84
2012	79	83	6	536	542	36	38	5	45	45
2013	77	82	11	456	457	58	74	15	52	53
2014*	69	72	3	380	392	42	47	6	49	55
2015*	57	58	8	230	234	37	39	11	28	31

*Data for the year 2014 to 2015 are provisional and data for 2015 are up to 31.10.2015

Table No. 13.5B								
Trend in Fatal Accidents and Fatality Rates per 1000 Persons Employed (Ten Yearly Average)								
Year	Coal Mines				Non coal Mines			
	Avg. Acc	Acc. Rate	Avg. Killed	Death Rate	Avg. Acc	Acc. Rate	Avg. Killed	Death Rate
1951-1960	222	0.61	295	0.82	64	0.27	81	0.34
1961-1970	202	0.48	260	0.62	72	0.28	85	0.33
1971-1980	187	0.40	264	0.55	66	0.27	74	0.30
1981-1990	162	0.30	185	0.34	65	0.27	73	0.31
1991-2000	140	0.27	170	0.33	65	0.31	77	0.36
2001-2010	87	0.22	108	0.27	54	0.32	67	0.40
2011-2015*	73	0.20	76	0.21	45	0.22	52	0.25

*Provisional (as on 31.10.2015).

Table 13.6									
Number of Inspections and Enquiries									
Year	No. of Inspections				No. of Enquiries				Grand Total
	Coal	Metal	Oil	Total	Coal	Metal	Oil	Total	
1998	4752	2539	166	7457	1127	398	29	1554	9011
1999	6106	3061	198	9365	1319	483	26	1828	11193
2000	5642	3614	245	9501	1163	325	26	1514	11015
2001	5410	2908	229	8547	1148	418	51	1617	10164
2002	5667	2856	269	8792	1022	402	30	1454	10246
2003	5574	3247	246	9067	966	427	13	1406	10473
2004	5214	2983	228	8425	834	436	08	1278	9703
2005	5247	3107	295	8649	933	372	30	1335	9984
2006	4192	2630	219	7041	951	338	27	1316	8357
2007	4330	2309	183	6822	796	380	24	1200	8022
2008	4614	2838	216	7668	840	417	24	1281	8949
2009	4404	3325	250	7979	899	372	52	1323	9302
2010	3486	3297	243	7026	911	462	52	1425	8451
2011	3216	3688	321	7225	956	452	68	1476	8701
2012	3811	3635	292	7738	933	537	40	1510	9248
2013	4039	3783	326	8148	866	438	31	1335	9483
2014	4664	4694	588	9946	1035	540	111	1686	11632
2015*	4967	4865	667	10499	1085	575	16	1676	12175
Provisional and figures are up to 31.10.2015									

Table 13.7				
Applications received & Certificates of Competency issued during April, 2015 to October, 2015				
Category of certificates of competency	Coal Mines Regulation, 1957		Metalliferous Mines Regulations, 1961	
	Applications received	Certificates issued	Applications received	Certificates issued
Manager	5190	475	188	345
Surveyor	44	135	17	21
Overman / Foreman	368	516	148	159
Sirdar / Mate	948	228	1280	353
Shotfirer/Blaster	Nil	Nil	647	143
Winding Engine Driver	11	25	22	11
Gastesting	3706	1056	553	152

Table 13.8

List of various Seminar, Symposium, Conference, Workshops Conference etc.,
attended by DGMS Officers during 01.04.2015 to 31.10.2015.

Sl. No	Subject	Venue	Duration	Number of officers attended
1	International Conference on "Global Challengers, Sposlssicy Framework and Sustainable Development for Mining of Mineral and Fossil Energy Resources"	Surathkal, Mangalore	17- 18.04.2015	05
2	Certificate Course on "Safety Management"	Bhubaneshwar	11-23.05.2015	02
3	Managerial Awareness Programme for management trainee (MM &EM) of CIL	Kanke, Ranchi	15.05.2015-26.06.2016	01
4	Explosives Conclave, 2015	Kolkata	03.07.2015	01
5	Short term course on Mine Safety and Legislation	Kharagpur	20-22.07.2015	01
6	Seminar on "Slope Stability Issues in Opencast Mining and Civil Engineering" (SSIOMCE15)	Rourkela	25-26.07.2015	01
7	Seminar on "Regulatory Aspects for Industrial Products in International Trade with Swadeshi Collaboration"	New Delhi	10-12.08.2015	02
8	Workshop on Special Recruitment Drive to fill-up the vacancies for persons with Disabilities (PWDs)	New Delhi	08.08.2015	01
9	Second National Conference on Mining Equipment: New Technology, Challenges and Applications (MENTCA'15)	ISM, Dhanbad	09-10.10.2015	02

Table 139

**THE DETAILS OF TRAININGS ATTENDED BY DGMS OFFICERS DURING
01.04.2015 to 31.10.2015**

Sl. No.	Name of the Seminar, Workshop, Symposium etc	Venue	Period	No. of Officers attended
NIL				

Table 1310

Training (abroad)/foreign visit of DGMS Officers from 01.04.2015 to 31.10.2015

Sl. No.	Course	Venue	Period	No. of Officers attended
NIL				