POLICY, LEGAL AND STATUTORY FRAMEWORK ON
INDUSTRIAL SAFETY AND HEALTH

V.B. Sant

INTRODUCTION
Safety, health and welfare of working population have always been the integral part of developmental planning of any country. At a global level also, industrial safety has been drawing attention of international agencies such as ILO, WHO, UNDP, UNEP, etc. In fact, efforts are being made to consider and recognize occupational safety and health as one of the human rights. The occupational safety and health took roots in India, way back in 1881 when first Factories Act was enacted. Since then, a number of developments at policy level, legislative levels and regulatory level have taken place.

POLICY FRAMEWORK
Constitutional Provisions
The Constitution of India under the Directive Principles of State Policy provides for certain safeguards to workers. The State policies should be directed to ensure that health and strengths of workers are not abused and just and humane conditions of work and maternity relief that are provided. The Constitution prohibits employment of child below 14 years of age for work in any factory, or mine or any hazardous occupation. The constitution also provides for the State to make any special provision for women and children.

ILO Conventions
The International Labour Organisation (ILO) is the standard making body in the area of labour and social issues. The ILO was established in the year 1919. Since then, they have formulated 188 Conventions relating to conditions of labour. In addition, they have also formulated several recommendations, codes of practices and guidelines for the benefit of member countries. As one of the founder members, India has so far ratified 41 Conventions. The ILO has framed about 30 Conventions relating to occupational safety and health. The Government of India has so far ratified three Conventions relating to Occupational Safety and Health, namely Convention No.115 concerning Radiation Protection, Convention No.136 concerning Benzene and Convention No.174 concerning Prevention of Major Industrial Accidents.

The ILO Convention (No.155) on Occupational Safety & Health and Working Environment requires formulation of national policy. Further, other Conventions such as Convention No. 187 concerning promotional framework for occupational safety and health, Convention No.174 concerning prevention of major industrial accidents; Convention No. 170 concerning safety in the use of chemicals at work; Convention No.161 concerning occupational health services, also require Member States (Countries) to formulate, implement and periodically review coherent national policy concerning safety related aspects.

The Government of India is considering ratification of certain Conventions relating to safety and health. These include Convention No.162 concerning safety in the use of Asbestos; Convention No.127 concerning maximum permissible weight to be carried by one worker, etc. As a step towards facilitating the ratification, a national policy on occupational safety, health and environment at workplace is already prepared by the Ministry of Labour and Employment (MOLE). The policy is under advanced stage of declaration.

National Policy On Occupational Safety, Health And Environment At Work
The national policy aims at improvement in the safety, health and environment at workplace through:-

(i) statutory framework on OSH in respect of all sectors of economic activities
(ii) facilitation of technical support services
(iii) providing incentives to employees and employers
(iv) establishment and maintaining of R & D capabilities in the area of risk management
(v) focusing on prevention strategies; and
(vi) competence enhancement of technical manpower.

The policy sets its objective to achieve continuous reduction in work related injuries, diseases and associated costs; and continuous enhancement of awareness regarding safety, health and environment. The policy also outlines an Action Programme for achieving these objectives and goals. It identifies 9 key strategies :-

1. Enforcement
2. Development of national standards
3. Compliance
4. Awareness
5. Research and development
6. Skills development
7. Data collection
8. Practical guidance
9. Incentives

National Policies On Other Subjects
The Government of India have also formulated National Environment Policy, National Policy on Petroleum, Chemicals and Petro-chemical Investment Regions (PCPIR), Policy on Information Technology Investment Regions, National Fertilizer Policy, etc. These policies also contain reference to the occupational safety and health aspects of working population. Apart from these, at the instance of National Human Rights Commission (NHRC), a national programme on ‘Elimination of Silicosis’ is being formulated. Further, a separate legislation concerning safety, health, social security and welfare of workers employed in unorganized sectors is also being contemplated.

JULY-SEPTEMBER 2008
**Tripartite Consultations**

The MOLE has put in place a tripartite consultative mechanism in the form of Indian Labour Conference (ILC), to discuss the issues relating to labour including occupational safety and health. The ILC is assisted by another tripartite forum, Standing Labour Committee (SLC) which frames the agenda for the ILC. Further, MOLE has also constituted Tripartite Committee on ILO Conventions which addresses the issue of ratification of ILO Conventions. In addition, Tripartite Committees are also constituted as per the enabling provisions under various statutes concerning safety and health.

**LEGAL FRAMEWORK**

As per the allocation of business rules under the Constitution, labour is in the concurrent list of subjects. It is dealt with by the MOLE at the Central and Departments of Labour under State Governments in respective States / UTs. The MOLE has enacted workplace safety and health statutes concerning workers in the manufacturing sector, mines, ports and docks and in construction sectors. Further, other Ministries of the Government of India have also enacted certain statutes relating to safety aspects of substances, equipment, operations etc. Some of the statutes applicable in the manufacturing sector are discussed below:-

### The Static and Mobile Pressure Vessels (Unfired) Rules, 1981

These (SMPV) Rules are notified under the Explosives Act, 1884. These rules regulate storage, handling and transport of compressed gases. These rules stipulate requirements regarding construction and fitments, periodic testing, location, fire protection, loading and unloading facilities, transfer operations etc. in respect of pressure vessels whose water capacity exceeds one thousand litres. These rules are enforced by the Chief Controller of Explosives under the Ministry of Industry and Commerce, Govt. of India (PESO).

### The Manufacture, Storage and Import of Hazardous Chemicals Rules (MSIH), 1989

These MSIHC Rules are notified under the Environment (Protection) Act, 1986. These rules are aimed at regulating and handling of certain specified hazardous chemicals. The rules stipulate requirements regarding notification of site, identification of major hazards, taking necessary steps to control major accident, notification of major accident, preparation of safety report and on-site emergency plan; prevention and control of major accident, dissemination of information etc. These rules are notified by the Ministry of Environment and Forests (MOEF) but enforced by the Inspectorates of Factories of respective States / UTs in the manufacturing sector.

### The Factories Act, 1948 and State Factories Rules

The Factories Act, 1948 is very comprehensive legislation dealing with the matters of safety, health and welfare of workers in factories. The Act places duties on the occupier to ensure safety, health and welfare of workers at work. Some of the salient provisions of the Act include:-

(i) Guarding of machinery  
(ii) Hoists and Lifts; Lifting Machines and Appliances  
(iii) Revolving Machinery  
(iv) Pressure Plant  
(v) Excessive Weight  
(vi) Protection of Eyes  
(vii) Precautions against dangerous fumes, gases etc.  
(viii) Explosive or inflammable dust, gas etc.  
(ix) Precautions in case of fire  
(x) Safety of buildings and machinery  
(xi) Permissible limits of exposure of chemical and toxic substances

In addition to above specific safety requirements, the Act also contains requirements relating to safety management system. Some of these are:-

(i) declaration of safety and health policy  
(ii) appointment of safety officer  
(iii) disclosure of information  
(iv) preparation of on-site emergency plan  
(v) medical examination and surveillance  
(vi) competent supervision of handling of hazardous substances  
(vii) constitution of safety committee  
(viii) rights of workers  
(ix) education and training  
(x) notification of accidents  
(xi) notification of occupational diseases  
(xii) obligation of workers

The Factories Act, 1948 also contain provisions relating to protection of women workers. Some of these provisions are :-

(i) prohibition on employment of women in cleaning, lubricating or adjusting any part of prime-mover in motion,  
(ii) prohibition on employment of women near cotton-openers,  
(iii) provision of separate washing facilities,  
(iv) provision of crèches  
(v) restriction on employment of women during 7 PM to 6 AM; and  
(vi) prohibition or restriction on employment of women in certain dangerous manufacturing processes or operations.

The MOLE is the nodal Ministry for the administration of the Act at the Central and Inspectorates of Factories are the enforcing agencies in the States / UTs.

**REGULATION OF SAFETY AND HEALTH IN FACTORIES**

The Factories Act, 1948 is applicable to the premises where (i) manufacturing process is carried on with the aid of power employing 10 or more persons; (ii) manufacturing process is carried on without the aid of power employing 20 or more persons; (iii) notified under Section 85 of the Factories Act, 1948. The State Governments are empowered to make rules under the enabling provisions as well as general provision. The State Governments are also empowered to appoint inspectors and the Chief Inspector. Thus, the State Inspectorates of Factories enforce the provisions under the
 ARTICLE

Act and Rules. The uniformity in States Rules notified by different States / UTs is sought through framing of Model Rules by DGFSALI under MOLE. Further, uniformity in enforcement is achieved through mechanism of the Annual Conference of Chief Inspectors of Factories organized by the DGFSALI. The statistics pertaining to the status of compliance are collected through annual returns by the Inspectorate and compiled by the Labour Bureau under MOLE, at national level. The DGFSALI also collects the information on status of OSH in factories through CIFs.

Inspection of Factories
As per the data published by the DGFSALI for the year 2005 there were 281109 registered factories, out of which about 83% (i.e. 233122) were only working. The employment of women workers was 1.43 million (as against 9.54 million male workers) constituting 13% of total employment in factories. During the year, 133703 factories were inspected by the 788 Inspectors of Factories. There are about 300 working factories per Inspector and on an average 170 inspections are carried out by an Inspector of Factories. During the year, 38346 violations were detected and 13412 prosecutions were launched by the Inspectorates. Thus, 165 violations are detected per 1000 working factories and prosecutions are launched against 58 out of every 1000 working factories.

Industrial Injuries
During the year 2005, a total of 49304 injuries were reported out of which 1142 were fatal injuries. The incidence rate of injuries works out to 4.45 injuries per 1000 workers employed. However, the incidence rate of injuries in respect of women workers works out to 0.5 per 1000 women workers, approximately, as against 5.0 per 1000 male workers employed. Although the total injuries have declined, fatal injuries have gone up from 1081 to 1142 during the period 2004 - 2005.

Management of OSH
As discussed at para 3.3, the Factories Act, 1948 and the State Factories Rules envisage the occupier to comply with the requirements relating to safety management system. The level of compliance with such provisions is depicted below:-

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Provision</th>
<th>Requirement in factories</th>
<th>Compliance by factories</th>
<th>% compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Declaration of Safety and Health Policy</td>
<td>13212</td>
<td>9053</td>
<td>69</td>
</tr>
<tr>
<td>2</td>
<td>Appointment of Safety Officer</td>
<td>1699</td>
<td>1471</td>
<td>87</td>
</tr>
<tr>
<td>3</td>
<td>Constitution of Safety Committee</td>
<td>11461</td>
<td>9315</td>
<td>81</td>
</tr>
<tr>
<td>4</td>
<td>Preparation of on-site emergency plans</td>
<td>1381</td>
<td>1369</td>
<td>99</td>
</tr>
</tbody>
</table>

EMERGING ISSUES

General Legislation on Occupational Safety and Health
At present, separate statutes are enacted covering safety and health aspects of workers employed in some sectors such as factories, mines, ports and docks and construction. Many branches of economic activities are out of coverage of OSH Legislation. There is a need for enactment of a general legislation to secure safety and health of persons at work as well as other persons, against the risks arising out of or in connection with the activities at all places of work.

National Board for Accreditation in Occupational Safety and Health
The existing statutes on safety and health require regulation, recognition, certification, approvals etc. in respect of many of the requirements. Since there are multiple agencies namely, CIFs of various States/UTs, it is felt that there should be a single agency.

Self Certification and Third Party Certification
In order to reduce the burden of inspection, a system of self-certification regarding compliance with OSH standards can be introduced. The factories employing less than 50 workers could be required to furnish the Annual Return on the compliance with the certain provisions of the Factories Act, 1948. These Returns can be accepted as a self-certification and no inspection may be undertaken in respect of such factories. However, inspections can be carried out in case of complaints, accidents, etc. Any non-compliance detected during such inspection should be taken very seriously and the occupier and manager of such factories can be severely punished. A system of self-certification in respect of compliance with labour laws have been introduced by certain States such as Gujarat, Punjab, Uttar Pradesh, etc. A system of third party inspection/ Certification can also be introduced to give factories employing 50 or more workers an option to get their statutory compliance certified by external agencies. Once such certification has been obtained the factory can be exempted from routine inspection. However, special inspection could be carried out on receipt of complaints, accidents, etc. For the purpose of uniformity and ensuring adequate standard of certification a system of accreditation of certifying agencies will have to be established.

Protection of Women Workers vis-à-vis Equal Opportunities
In the era of globalisation and liberalization, equal opportunities to male and female workers have become essential feature of any business enterprise. At international level also women employees are contributing significantly in the growth of business. Therefore, the restrictive provisions under the statutes seem to be discriminating and many women organizations have taken up the issue at social, political and judicial levels.

Conclusion
In India, a national system on Occupational Safety and Health in the form of policy, statutes and regulatory
mechanism exists in respect of certain branches of economic activities namely, factories, mines, ports and docks and construction. However, there is a need to extend the OSH coverage to all other sectors, through appropriate means. Further, with the phenomenal growth in the industrial sector, a system of self-certification and third party certification in the field of OSH is essential in order to reduce the burden of inspection.

References
1. Constitution of India
2. The Factories Act, 1948
3. The Model Rules under the Factories Act, 1948; DGFASLI 1998
5. DGFASLI Standard Reference Note 2006; DGFASLI April 2007
6. www.ilo.org
7. www.labour.nic.in
8. www.dgfasli.nic.in

CIS (from the French name, Centre International d'information dr securite et d'hygiene du travail) i.e. International Occupational Safety and Health Information Centre, is a part of the International Labour Office, Geneva, Switzerland. The mission of CIS is to collect world literature that can contribute to the prevention of occupational hazards and to disseminate this information at an international level. CIS imparts to its users the most comprehensive and up-to-date information in the field of Occupational Safety and Health. The work of CIS is supported by a worldwide Safety and Health information exchange network, which includes over 91 affiliated National Centres and 38 CIS collaborating Centres. Central Labour Institute, Mumbai has been designated as the CIS National Centre of India. CIS can offer you rapid access to comprehensive information on occupational safety and health through its abstracts on latest OSH publications, the CIS Thesaurus and ILO Bulletin “Safety and Health at Work’.

EXCERPTS FROM CIS DOC

TITLE: Lifting and carrying aids in rescue work. (CIS 07-1493)
ABSTRACT
The lifting and carrying equipment used by personnel working in rescue services was evaluated mainly in simulation tests by examining specific aspects. In collaboration with local rescue services, motion sequences, physical postures, joint angle positions of the hand-arm system during transport on two different courses were examined and various assessment schemes were used and developed further. These evaluations allowed collecting detailed information on motion sequences in both theory and practice. Findings show that there are gaps in information concerning carrying equipment design, focal load points and assessment specifications. Recommendations are made on the design and selection of carrying aids and on assessment methods for their ergonomic evaluation. (107468)

TITLE: Electromyography for assessing muscular strain in the workplace. (CIS 07-1494)
ABSTRACT
This study assesses the use of electromyography (EMG) in ergonomic interventions. A first step involved a literature survey, which formed the basis for the development of a theoretical framework. Next, changes in EMG amplitude were evaluated before and after ergonomic interventions for the following work tasks: use of auxiliary handling devices in the construction industry; change in a tool and work method used in upholstered furniture manufacturing; change in work methods in work with a computer mouse; adjustable table for work with a microscope. The results indicate that ergonomic solutions can be found for common musculoskeletal risk factors, and the effect can be confirmed with EMG amplitude analysis. (107390)

TITLE: Development of an interactive toolkit for Safe Site as part of the workplace transport priority programme. (CIS 07-1472)
ABSTRACT
Safe Site is a web-delivered software application that makes use of virtual reality and other interactive media elements to educate users on the safety of industrial safety, particularly where vehicles come into close proximity with other vehicles and pedestrians. This report is a compilation of earlier interim reports and therefore gives a chronological breakdown of the project's development. Stages one and two focused on the design effort, while the latter stages focused on media production, testing, feedback and system integration. The report concludes with a series of short recommendations concerning future phases of the project. (107337)

TITLE: Development of a loading dock safety evaluation tool. (CIS 07-1468)
ABSTRACT
The objective of this literature-based study was to evaluate the technical and the organizational aspects of the restraint measures that could have an impact on safety of forklifts used to load and unload trucks at loading docks. Certain elements were examined very closely, especially the failure of mechanical devices and their relation to the environment in which they are used, as well as the interaction between workers and the various restraint measures in use in a given context. This work enabled the development of a safety evaluation tool regarding restraint measures or systems for trucks docked at loading platforms. The tool is designed to help companies choose the optimal safety measures to implement in any given situation, while remaining realistic in terms of the technical and economic aspects. (107286)

NOTE: For details, write to CIS National Centre for India, Central Labour Institute, Sion, Mumbai 400 022.
NATIONAL WORKSHOP ON OCCUPATIONAL HEALTH WITH SPECIAL REFERENCE TO SILICOSIS FROM 23RD TO 26TH SEPTEMBER, 2008 AT CENTRAL LABOUR INSTITUTE, MUMBAI

The National Workshop on “Occupational Health with special reference to Silicosis” was held from 23rd to 26th September, 2008 at the Central Labour Institute, Mumbai. This workshop was jointly organized by the Directorate General Factory Advice Service & Labour Institutes, Mumbai; Employees State Insurance Corporation, Delhi along with Maulana Azad Medical College, Delhi.

Shri Prabhat C. Chaturvedi, Director General, Employees State Insurance Corporation, New Delhi inaugurated the national workshop in the presence of the Director General, Directorate General Factory Advice Service & Labour Institutes, Mumbai. Shri Chaturvedi also unveiled two posters on Silicosis disease commemorating the event. The presidential address was given by Shri S.K.Saxena, Director General, DGFASLI. After the inauguration of workshop, Shri Chaturvedi inaugurated the C.L.I. exhibition stall.

In this National level workshop which is the 1st one in the series, has 25 ESI Medical Officers and 8 Medical Officers from Primary Health Centers participated. These doctors have come from 12 states of the country (Andhra Pradesh, Chattisgarh, Delhi, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Pondicherry, Tamil Nadu, Uttar Pradesh and West Bengal). During the four days workshop, 18 lecture sessions on various topics were taken place by all disciplines from Central Labour Institute, Mumbai and a few professionals from outside the institute have also taken part in it.

The valedictory function of the workshop was held at CLI Auditorium, Mumbai. Shri S.K.Saxena, Director General, DGFASLI welcomed all the dignitaries. Dr. A.K.Aggarwal, Dean, Maulana Azad Medical College, Delhi delivered his address. The presidential address was delivered by Shri K.H.Muniyappa, Hon’ble Minister of State for Shipping, Road Transports & Highways, giving away the award to one of the winner. From left: Shri S.K.Srivastava, Joint Secretary, Min. of Labour & Employment, Shri K.H. Muniyappa, Hon’ble Minister of State for Shipping, Road Transports & Highways; Smt Sudha Pillai, Secretary, Min. of Labour & Employment; Shri S.Krishnan, Special Secretary, Shri S.K.Saxena, Director General, DGFASLI, Mumbai.

With a view to recognize the outstanding contributions made by the workers leading to increased productivity, quality, better working conditions, vis-a-vis safety, health & environment in Factories/Docks, Govt. of India had instituted the Vishwakarma Rashtriya Puraskar Scheme in the year 1965. There are 3 classes of Awards under Vishwakarma Rashtriya Puraskar - Class "A", Class "B" and Class "C". The awards carry a Cash Prize of Rs.75,000 for Class "A", Rs. 50,000 for Class "B" and Rs. 25,000 for Class "C".

The Government of India had also instituted the National Safety Awards (NSA) in the year 1965 with the objective of recognizing outstanding safety performance by Factories and to promote various safety programmes in factories located across the country.

In 1971, the scheme was extended to the Port Sector. Later on the scheme was further extended to Construction Sector and Nuclear Installations coming under Atomic Energy Regulatory Board. The Awards are presented under 10 schemes, which includes two schemes exclusively meant for Port Sector. The awards are adjudged based on two main criteria - (i) Lowest Average
DGFASLI MEGA EVENTS

Frequency Rate of Accidents over a period of three consecutive years, ending with the performance year and (ii) Accident Free Year i.e. Accident Free Performance Year based on man-hours worked. The Awardees are presented with Shields and Certificates.

The Awards Presentation Function for Vishwakarma Rashtriya Puraskar & National Safety Awards for the Performance Year 2006 was held on 17.9.2008 at Vigyan Bhavan, New Delhi. Shri K.H. Muniappa, Hon’ble Minister of State for Shipping, Road Transports & Highways, Chief guest for the function gave away the Awards. A total of 109 Workers received Vishwakarma Rashtriya Puraskar under different categories. A total of 154 organizations /establishments received National Safety Awards under different categories. Smt. Sudha Pillai, Secretary, Ministry of Labour & Employment delivered the welcome address. Shri S.K. Saxena, Director General, DGFASLI proposed vote of thanks.

The Library & Information Centre of Central Labour Institute has unique collection of Material Safety Data Sheet of about 1,20,000 chemicals/materials taken from Canadian Centre for Occupational Health & Safety. MSDS provides extensive coverage over safety perspective with detailed evaluation of health, fire and reactivity hazards. It also provides precaution as well as recommendation on handling, storage, personal protective equipment, accidental release etc. A brief Material Safety Data Sheet on few points for Nicotinamide is given below.

MATERIAL SAFETY DATA SHEET FOR NICOTINAMIDE

FIRE AND EXPLOSION HAZARDS
Physical Hazard Warning: Not applicable
Sensitivity To Static Discharge: Yes
Mechanical Impact: No
Flammable: No

TOXICOLOGICAL PROPERTIES
Health Hazard Warning: Not Applicable
Effects Of Acute Exposure: This material may be irritating to the nasal and respiratory tracts. Absorption can occur from the GI, skin, and respiratory tract.

FIRST AID MEASURES
Skin: Wash exposed area twice with soap and water. The exposed area should be examined by medical personnel if irritation or pain persists after the area has been washed.
Eye: Rinse eyes immediately with large amounts of water for at least 15 minutes, occasionally lifting the eyelids.

DECONTAMINATION PROCEDURES:
Use emergency shower if available. Remove all contaminated clothing to prevent further absorption and irritation.

NOTE
The above details constitute part information of MSDS taken from Canadian Centre for Occupational Health and Safety. For complete MSDS write to MIS division, Central Labour Institute, Sion, Mumbai- 400 022. MSDS on about 1,20,000 chemicals/materials are available with Central Labour Institute. Computer printout will be supplied on nominal charge.
Mega Event

The Silicosis Monitoring Cell of Industrial Medicine Division organized a National Workshop on Occupational health with special reference to silicosis from 23rd to 26th September, 2008 for ESIC Medical officers and Medical Officers from Primary Health Centres. The Workshop was inaugurated by Shri Prabhat C. Chaturvedi, Director General, ESIC, New Delhi on 23rd September, 2008. In this National level workshop 25 ESI Medical Officers and 8 Medical Officers from Primary Health Centers participated. These doctors have come from 12 states of the country. All disciplines who can contribute in the prevention of Occupational Diseases have made their presentation. A few professionals, from outside the institute have also taken part in it. The valedictory function of the workshop was held on 26th September, 2008. Shri S.Krishnan, Special Secretary and Shri S.K.Srivastava, Joint Secretary attended the valedictory function on behalf of Ministry of Labour & Employment, Government of India, New Delhi.

The Awards Presentation Function for Vishwakarma Rashtriya Puraskar & National Safety Awards for the Performance Year 2006 was held on 17.9.2008 at Vigyan Bhavan, New Delhi. Shri K.H. Muniyappa, Hon'ble Minister of State for Shipping, Road Transports & Highways, Chief Guest for the function gave away the Awards. A total of 109 Workers received Vishwakarma Rashtriya Puraskar under different categories. A total of 154 organizations/establishments received National Safety Awards under different categories. Smt. Sudha Pillai, Secretary, Ministry of Labour & Employment delivered the welcome address. Shri S.K.. Saxena, Director General, DGF ASLI proposed vote of thanks.

Studies

Assessment of Airborne Concentration in the Work-zone of the Engineering Industry in Maharashtra (by Smt. Mandre. M. K., Industrial Hygiene Division, Central Labour Institute, Mumbai.)

Evaluation of Heat Stress and Ventilation of a Tyre Industry in Maharashtra (by Ghosh. P.C, Industrial Physiology and Ergonomics Division, Central Labour Institute, Mumbai)

Ergonomic Evaluation of Work Station at Shop Floor and Office of a Chemical Industry in Gujarat (by Ghosh P.C., Industrial Physiology and Ergonomics Division, Central Labour Institute, Mumbai)

HAZOP Study in a Flue Gas De-sulphurisation Plant of a Thermal Power Station in Maharashtra (by Shri Gautam S.S. and Shri Kumar Sushil, Major Hazard & Chemical Safety Division, Central Labour Institute, Mumbai)

HAZOP Study in a Zinc Smelter Plant in Rajasthan (by Shri H. Vishwanath, Safety, Central Labour Institute, Mumbai and Shri Brij Mohan, Industrial Hygiene, Regional Labour Institute, Kanpur)

Safety Audit at Alcohol-based Organic Chemical Industry in Maharashtra (by Shri Gautam S. S. and Shri Kumar Sushil, Major Hazard & Chemical Safety Division, Central Labour Institute, Mumbai)

Safety Audit in an Engineering Company in Pune, Maharashtra (by Dr. Elangovan R. K., Director, Safety, Central Labour Institute, Mumbai)

Safety Audit in a Port Trust, Tamil Nadu (by Dr. Elangovan R. K., Safety, Central Labour Institute, Mumbai)

Assessment of Noise Study in L.P.G. Plant in Maharashtra (by Shri Subhash Chandra, Environmental Engineering Division, Central Labour Institute, Mumbai)

Assessment of Risk of Toxic Release and Bulk Fire in a Refractory Plant in Orissa (by Shri Gautam S. S. and Shri Sharma S.C., Major Hazard & Chemical Safety Division, Central Labour Institute, Mumbai)

Safety Audit in a Chlorine/Caustic Soda Plant in Punjab (by Shri Rajput M.R., Industrial Hygiene Division, Shri Sharma S.C, Safety Division, Regional Labour Institute, Faridabad)

Workshops/Seminars/Conference

The Silicosis Monitoring Cell of Industrial Medicine Division organized a National Workshop on Occupational health with special reference to Silicosis from September 23’26, 2008 for ESIC Medical officers and Medical Officers from Primary Health Centres at Central Labour Institute, Mumbai.
An officer from the Dock Safety Division attended the 3rd India EU National Seminar on Employment Relations and Resolution of Conflicts on September 22-23, 2008 at New Delhi.

**Training Programmes**

Industrial Psychology Division conducted a three days training programme on **Making Safety Committee More Effective** from August 26-28, 2008. The training programme was attended by 22 participants from eight different organizations.

Industrial Psychology Division conducted a two days in-plant training programme on **Making Safety Committee More Effective** from July 1-2, 2008 in an Automobile industry at Pune. The training programme was attended by 32 participants.

The Medical Division conducted the final examination for AFIH Course (2008) from July 1-3, 2008 at Central Labour Institute, Mumbai and Regional Labour Institute, Kolkata. The officers of the division also acted as the external examiner for AFIH (2008) final examination at Institute of Safety, Occupational Health and Environment, Panaji; Maulana Azad Medical College, New Delhi and Bharat Heavy Electricals ltd., Trichy. In all, 125 candidates appeared for the examination.

The Medical Division conducted **Awareness Programmes on Silicosis** for management and workers at Godhra, Baroda and Ahmedabad from August 5-9, 2008.

The MH&CS Division conducted three days training programme on **Safe Management of Hazardous Chemicals in the Process Industries** from July 23-25, 2008. It was attended by twelve delegates from various industries.

A two day in-plant training programme on **Chlorine Handling** was conducted in an Aluminium Industry by the MH&CS Division from June 26-27, 2008. It was attended by twenty-seven delegates from various departments of the factory.

The Environmental Engineering Division conducted three days training programme on **Impact of Environmental Pollutants and their Control at Workplace** from October 6-8, 2008.

The Staff Training Division conducted a training programme on **Team Building for Health, Safety and Welfare at Work** from July 15-17, 2008 wherein 13 participants attended the programme from five organizations.

The Staff Training Division conducted a training programme on **Training Methodology for Trainers** from August 5-7, 2008. The programme was attended by 20 participants from 11 organisations.

A one month certificate course was conducted by Staff Training Division for **Supervisors Employed in Hazardous Process Industries** from September 1-30, 2008, which was attended by six participants from 6 different organisations.

The Productivity Division organized two Professional Interaction Up-date Seminars on 3rd July & 5th September, 2008 respectively. Dr. T.V. Ranga Rao, Retd. Director (Industrial Medicine) deliberated on **Occupational Health Issues & Strategies**. Shri A.K.Basu, Retd. DGM, SAI, Bokaro, delivered a lecture on **Safety Behaviour at Work: Role & Authority**.

A Satellite Professional Interaction Up-date Seminar was organized by the Productivity Division. Shri S.S.Gautam, Director (Industrial Hygiene) led the seminar on **Safety in Bulk Storage of Hazardous Chemicals**.

New guidelines for competent persons were drafted and posted on the DGFASLI website. Medical form for medical examination of competent persons was drafted and posted on the DGFASLI website.

**Paper/Presentation/Talks**

Dr. R. K. Elangovan, Director (Safety) presented a paper on **Safety, Health and Environment protection in Steel Industries** in the 59th meeting of Joint Committee on Safety, Health and Environment in the Steel Industry (JCSSI) held at SAIL Safety Organisation, Ranchi, August 13, 2008.


**REGIONAL LABOUR INSTITUTE: KANPUR**

![Regional Labour Institute: Kanpur](image)

**Mega Event**

**NATIONAL SEMINAR ON SAFETY, HEALTH & ENVIRONMENT IN HAZARDOUS INDUSTRIES AND RELATED GENDER ISSUES**

The National Seminar on Safety, Health & Environment in Hazardous Industries and Related Gender Issues was organized at Noida on September 20, 2008 in collaboration with NTPC, Dadri and Power Management Institute, NOIDA, Uttar Pradesh. The seminar was inaugurated by the Secretary Min. of Labour & Employment, Government of India, Smt Sudha Pillai and Presidential & Valedictory addresses were given by the...
Joint Secretary Min. of Labour & Employment, Government of India, Shri S.K. Srivastava.
The seminar was attended by 216 delegates. The technical
Sessions were chaired by Ex. C.I.F. Delhi Shri V.K. Sharma
and Ex. Director of Factories, Uttar Pradesh, Shri
S.K. Saxena, DG, DGFASLI and Shri A.K. Chakrabarti, DDG,
DGFASLI were also present on the occasion.

Studies
Safety Audit at Tissue Paper Manufacturing Factory in the
Northern Region (by Shri Chakraborthy A. K., Safety Division,
Regional Labour Institute, Kanpur)

Workshops/Seminars/Conference
The Institute organized Northern regional Alignment Meeting
of OSH-stake holders to celebrate 2008: Year of industrial
Safety & Health on June 21, 2008 at Power Management
Instit., NOIDA, Uttar Pradesh. The meeting was chaired by
Shri S.K. Saxena, Director General, DGFASLI, Mumbai and
was attended by 65 OSH-stake holders from 51
organisations.

The Institute organized a workshop on Safety & Health in
Hazardous Industries of Uttrakhand at Haridwar, in
collaboration with the Inspectorate of Factories and Boilers,
Uttrakhand. The programme was inaugurated by the
Secretary, Ministry of Labour, Government of Uttrakhand.
The workshop was attended by 60 Managers from 30
Industrial units of Uttrakhand.

Training Programmes
The Institute conducted a five-day training program on
Testing & Examination of Lifting machinery, tackles & Pr.
Vessels. The topics covered included: Overview of Ind.
Safety and Health, Safety in use of conveyers, Safety in use of
industrial Trucks, Safety in use of Mobile cranes, Safety in
use of wire ropes, Indian Boiler Act & Rules, Importance of
effective Communication and case studies etc.

The Institute conducted a five-day training program on
Chemical Safety for work members of safety committee. The
programme covered topics like Chemical safety in factories,
Safety Committees and their working, Health hazards in
Industries and their control, Basic principles of Accident
Prevention, Prevention of Industrial Fire hazards and their
control, Important provisions under the Factories Act and
Personal Protective Equipment etc.

The Institute conducted a three-day training programme on
Safety and the Law. The programme covered topics like
Overview of Ind. Safety and Health, Indian Electricity Act,
Provisions relating to dangerous operation in the factories
Act, SMPV Rules, Hazardous waste management Rules,
MSIHC Rules 1989, Important provisions under the factories
Act 1948, Provisions Relating to hazardous Processes under
the factories Act and Provisions relating to training for safety
and their compliance etc.

Paper/Presentation/Talks
The Dy. Director, Industrial Hygiene, Dr. Brij Mohan of this
institute delivered a talk on Health Hazards and their control
in the workshop organized by Indian Society of Industrial
Hygiene and Directorate of Factories, Uttar Pradesh at

REGIONAL LABOUR INSTITUTE: CHENNAI

Studies
Environmental Study in the Brake Lining Manufacturing
Plant in Chennai (by Shri Dhende K. N., Industrial Hygiene
Division, Regional Labour Institute, Chennai)

Follow-up Environmental Study in the Brake Lining
Manufacturing Plant in Chennai (by Shri Ramulu A. Sree,
Industrial Hygiene Division, Regional Labour Institute,
Chennai)

Training Programmes
The Safety Division conducted two in-plant training
programmes on August 17, 2008 and September 11, 2008
on Construction Safety Management for Site Engineers.
The two training programmes were attended by 45 site-
engineers.

The Safety Division conducted two training programmes on
Safety Audits from August 20-22, 2008 and September
17-19, 2008. In total 44 participants from thirty
organizations attended the two training programmes.

Safety Division conducted a training programme from
September 24-26, 2008 on Major Accident & Hazard
Control for Inspectors of Factories. The training
programme was attended by 11 inspectors from 5 states.

Safety Division has voluntarily taken efforts to educate the
final year Polytechnique students of Southern states.
From July to September 2008, total 823 students from
three different institutions i.e., Government Polytechnique,
Purasai Vakkam; KNSK Polytechnique, VOC Nagar,
Kanyakumari District; Easuwari Engineering College,
Chennai in Tamilnadu have been trained.

Paper/Presentation/Talks
Shri S. Bharathi, Director, Safety Division presented a
paper in a seminar on Management of Hazards organized
by the National Safety Council, Tamilnadu Chapter.
Training Programmes

Safety Division conducted training programme on *Techniques of Hazards Identification & Assessment* from June 24-26, 2008. 14 participants from Management and Executive level attended the programme.

A five-day training programme titled *Inspection of Bulk Storage Facilities for Hazardous Substances* was conducted by Safety Division from July 21-25, 2008. 9 participants attended the programme.

Industrial Hygiene Division conducted 5-day training programme on *Environmental Hazards its Evaluation and Control in Industries* from August 18-22, 2008. This programme attended by 8 participants.

Safety Division organized 5-day training programme on *Safety in Construction Industries* from September 1-5, 2008. The newly training programme was designed exclusively for the Management and Executive level who are working in the construction site. 22 participants attended at the programme.

A five-day training programme titled *Chemical Safety for Inspectors of Factories* was conducted during September 8-12, 2008 exclusively for the Inspectorate of Factories from different states. 4 Inspector of Factories attended the programme.

Safety Division conducted 5-day training programme in two groups for students of Post Graduate Diploma in HRD & Labour Welfare for the students of State Labour Institute, Govt. of W.B., Kolkata from September 15-19 and 22-26, 2008. 25 students of each group attended the programme.

Paper/Presentation/Talks

Dr. S. K. Haldar, Dy. Director (Medical), delivered two lectures on *Notifyable Occupational Diseases and The ILO International Classification of Radiographs on Pneumoconiosis* in the national seminar on Occupational Health with a special reference to *Silicosis for ESIC Doctors and Doctors working in Primary Health Centre of State Governments* at Central Labour Institute, Mumbai.

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ABSTRACTS

1. Assessment of Airborne Concentration in the Work-zone of an Engineering Industry in Maharashtra (by Smt. M.K. Mandre, Industrial Hygiene Division, Central Labour Institute, Mumbai)

The factory is in the production of compressors which are required as a cooling system for refrigerators and air conditioners. The study was carried out for evaluation of airborne contaminants like carbon monoxide, carbon black, Chromic Acid, Iron dust, oil mist, welding fumes, Oxide of Nitrogen and solvent vapours like ethyl acetate, Toluene, Xylene & Tri Chloro ethylene. The air borne concentration of all the contaminants were found well below permissible limit of exposure except in the paint shop for Xylene vapours. The recommendation such as use of organic vapour cartridge respirators in the paint shop and repair of local exhaust system, in grinding operation and training to the workers were suggested.

2. Assessment of Airborne Concentration in the Work-zone of a Chemical Industry in Gujarat (by Smt. M.K. Mandre, Industrial Hygiene Division, Central Labour Institute, Mumbai)

The factory is in the production of Polystyrene which is used for packing materials, electronics boards. The study was carried out to evaluate the exposure of Styrene, ethyl benzene to the workers in the plant during sampling, Pelleting, Rubber shopper, near storage tank, and instrumentation laboratory. The airborne concentration of Styrene, Ethyl Benzene was found well below permissible limit of exposure. The recommendations were given to improve the working conditions, housekeeping and maintenance of all the exhaust systems.


The heat stress and ventilation study was carried out at a Tyre Industry to ascertain (a) the level of air velocity prevailing in various sections, (b) the level of heat stress prevailing in various sections in terms of physiological indices of heat stress and (c) the physiological discomfort among the operator. The study revealed the level of heat stress in various sections was varying from moderate to high. The level of air velocity in terms of ventilation was found to be turbulent because of the positioning of the haphazard positioning of mechanical system. The level of air velocity was found to be higher in all sections than the prescribed limit. The physiological reaction due to heat exposure among the operators was found to be moderate. Accordingly, the appropriate suggestion for the improvement was given for further improvement.

4. Ergonomic Evaluation of Work Station at Shop Floor and Office of a Chemical Industry in Gujarat (By Ghosh P.C., Industrial Physiology and Ergonomics Division, Central Labour Institute, Mumbai)

Ergonomic evaluation of a Chemical industry, in their shop floor & office premises have been conducted with the following objectives such as to ascertain mismatch among office executives, finding matching work station for computer and VDT users, physiological cost of job at shop floor, specific evaluation of job stress carried out in many shop floor, strength profile of both office as well as shop floor operators have been evaluated to determine the safe limit of industrial operations. As envisaged, all evaluations as required were done and appropriate specific suggestions for improvement of work stress, work posture and various mismatched dimensions have been given to the management for improvement. Most of the shop floor was found to be adequately mechanized to conserve physiological energy.

5. HAZOP Study in a Flue Gas Desulphurisation Plant of a Thermal Power Station in Maharashtra (by Shri S.S. Gautam and Shri Sushil Kumar, Major Hazard & Chemical Safety Division, Central Labour Institute, Mumbai)

The Major Hazard & Chemical Safety Division of CLI carried out the HAZOP study of the company. The report of the study covers the detailed methodology, process description, findings of the study in the form of HAZOP sheets and summary of recommendations generated through the HAZOP exercise. In the following sections of the piping or equipment, the interventions such as gas to gas heater, ID fan to gas to gas heater, booster fan, scrubber to booster fan, dust from booster fan to chimney, bypass damper have been suggested to improve the safety and health conditions.

6. Safety Audit in a Chemical Plant Manufacturing Alcohol and Its Derivatives in Maharashtra (by Shri S.S. Gautam and Shri Sushil Kumar, Major Hazard & Chemical Safety Division, Central Labour Institute, Mumbai)

The Major Hazard & Chemical Safety Division of CLI carried out the safety audits in plants manufacturing alcohol and its derivatives like acetic acid, acetic anhydride, acetaldehyde, ethyl acetate etc. The objective of the audit was to identify the hazards and to suggest the remedial measures arriving due to deviations from the applicable statutes and standards. The findings include some shortcomings in the managerial aspects like safety policy, safety organization, workers participation in safety management etc. The records and safety and health systems in the plans are being met with effectively. Storage tanks of hazardous chemicals are provided with the dyke walls but most of them are non-functional due to lack of up-keep. In all 83 recommendations have been made in the report.

7. Safety Audit at Tissue Paper Manufacturing Factory in the Northern Region (by Shri A.K. Chakraborty, Safety Division, Regional Labour Institute, Kanpur)

The Safety Audit was carried out with the objective of identifying the hazard, to evaluate the safety and health
system in the factory and to suggest remedial measures. Different plant processes and operations, storage of chemicals, maintenance procedure, accident investigation, work environment monitoring, occupational health centre, use of PPE, housekeeping etc. were thoroughly reviewed at the time of audit. Some of the findings included Policy lacking commitment to include contract workers, Several safety checklists were non existing, separate work permits for some categories were not available, investigation of serious and reportable accidents were not conducted by a team, lack of alarm system in chlorine storage area, lack of thickness monitoring of important equipment, no colour coding of pipe lines etc. Several recommendations were suggested for improvement.

8. Environmental Study in the Brake Lining Manufacturing Plant in Chennai (by Shri K.N.Dhende, Industrial Hygiene Division, Regional Labour Institute, Chennai)
The study was conducted with the objective to assess the levels of airborne asbestos fibres in work environment and to suggest remedial measures wherever necessary to improve the environmental conditions.

Samples of airborne asbestos fibres in different areas were collected and the the level of airborne asbestos fibres was measured. The concentrations of asbestos fibres in compounding, performing area and finishing area were found quite low as compared to the Permissible Limit of Exposure (PLE) of asbestos fibres i.e. 1 fibre/cc. However, considering the work practices adopted in these areas, it is suggested to continue the existing control measures as indicated. Remedial measures have been suggested to improve the environmental conditions in various areas.

9. Follow-up Environmental Study in the Brake Lining Manufacturing Plant in Chennai (by Shri A.Sree Ramulu, Industrial Hygiene Division, Regional Labour Institute, Chennai)
The plant is engaged in the production of brake linings for use in various types of automobiles. Asbestos fibres are a basic raw material used in process. Samples of airborne asbestos fibres in different areas were collected and the level of airborne asbestos fibres was measured. The average concentration of asbestos fibres in compounding area, pre-forming area and finishing area were well below the PLE for asbestos fibre i.e. 1 fibre/cc. However, it is suggested that the remedial and preventive measures as laid down in the report of the previous study should be continuously followed. Further, the side openings provided in the bag opening and cutting system for movement of the pusher should be minimized and covered to the maximum extent possible, in order to prevent the escape of fibres from the few remedial measures suggested.

10. Safety Audit in a Chlorine/ Caustic Soda Plant in Punjab (by Shri Rajput M.R., Industrial Hygiene Division, Shri Sharma S.C, Safety Division, Regional Labour Institute, Faridabad)
The safety audit was carried out in a chlor-alkali plant. The company has a well documented safety policy, the copies of which have been made available to all the employees. The safety department is headed by a duly qualified Assistant General Manager (Safety) reporting directly to the Chief Executive of the plant. The safety committee is functioning well in the organization. The main products of the plant are chlorine gas and caustic soda lye and flakes. Hydrochloric acid and hydrogen gas are also produced as by-products. Safety aspects like proper upkeep of the structures, housekeeping, electrical safety, safety of storage tanks and process vessels, accident investigation and reporting, ventilation in dry chemical storage, pipe lines safety, maintenance of earth pit, discharge of static electricity, machine guarding, corrosion prevention, effluent treatment and waste disposal, timely replacement of ruptured bursting discs, personal protective equipment, fire protection, strict control over the transport vehicles etc., are some of the areas where perpetual attention is required. In all 100 recommendations on the above mentioned aspects were suggested.

11. Assessment of Risk of Toxic Release and Bulk Fire in a Refractory Plant in Orissa (by Shri Gautam S. S. and Shri Sharma S.C., Major Hazard & Chemical Safety Division, Central Labour Institute, Mumbai)
The study was conducted to assess the risk due to toxic release of carbon monoxide from the producer gas plant and radiant heat from pool fires on burning of spilled fuel oil.

The report presents the findings of the assessment of the physical effects of the release of toxic carbon monoxide from the producer gas plant and radiant heat from pool fires on burning of spilled fuel oil and HSD in the storage area. The study revealed that under very stable weather conditions the danger to life and health due to carbon monoxide may reach up to about 1000 meters. The study also reveals that on fire in spilled fuel oil or HSD, there is a risk of 1% fatality up to a distance of about 16 meters from the tank.

12. Noise Study In a Chemical Factory in Maharashtra (by Shri Subhash Chandra, Environmental Engineering Division, Central Labour Institute, Mumbai)
The noise study was carried out at a Chemical Industry with the objective to measure the prevailing sound pressure levels at various work station and to suggest noise induced hearing loss to workers and other problems related to noise. The study was carried out at 12 different locations of the factory using sound level meter. All the study findings were compared with the standards prescribed under Section 87 of Factories Act. The study reveals the noise level at three locations exceeded the prescribed limit. Several appropriate recommendations were given for further improvement.
TRAINING CALENDER

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E-mail address: cli@dgfasli.nic.in

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Title of the Programme</th>
<th>Period</th>
<th>Co-ordinating Division</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Impact of Environmental Pollutants &amp; their Control at Workplace</td>
<td>October 06-08</td>
<td>EED</td>
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<tr>
<td>2.</td>
<td>Refresher Course for Safety Officers</td>
<td>October 13-17</td>
<td>SAFETY</td>
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<td>3.</td>
<td>Workshop on HAZOP</td>
<td>October 15-17</td>
<td>MH&amp;CS</td>
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<td>4.</td>
<td>Industrial fitness, a key to improve safety, health &amp; productivity at work</td>
<td>October 20-22</td>
<td>PHY</td>
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<tr>
<td>5.</td>
<td>Evaluation of Environmental Pollutants &amp; their Control at workplace</td>
<td>November 05-07</td>
<td>IH</td>
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<td>6.</td>
<td>Refresher Course for Senior Inspectors of Factories</td>
<td>November 10-21</td>
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<td>7.</td>
<td>Handling Problem Behaviour of Employees</td>
<td>November 18-20</td>
<td>IND.PSY.</td>
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<td>8.</td>
<td>Productivity and Quality Improvement through effective employees participation</td>
<td>November 19-21</td>
<td>ST/PROD</td>
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<td>9.</td>
<td>Storage &amp; Handling and Management of Hazardous substances in process industries</td>
<td>November 19-21</td>
<td>MH&amp;CS</td>
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<tr>
<td>10.</td>
<td>Management of Occupational Hazards in Use of Computer &amp; VDT Appliances at Work</td>
<td>November 24-26</td>
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<td>11.</td>
<td>Occupational Health Practice for Nurses, Health/Medical Assistants etc.</td>
<td>December 01-05</td>
<td>IND. MED.</td>
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<tr>
<td>12.</td>
<td>Effective Leadership for Safety, Health &amp; Productivity</td>
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<td>IND.PSY.</td>
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<tr>
<td>13.</td>
<td>Effective Leadership for Safety, Health &amp; Environment at workplace</td>
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<td>14.</td>
<td>Impact of Environmental Pollutants &amp; their Control at Workplace</td>
<td>December 22-24</td>
<td>EED</td>
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<td>15.</td>
<td>Pulmonary Function Test: A Physiological Perspective</td>
<td>December 22-24</td>
<td>PHY</td>
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</table>


- The concerned division will mail the training programme brochures sufficiently in advance, confirming the dates of commencement of course, its venue etc. to the organizations as per the mailing list available with the division.
- The Director In-charge of the respective co-ordinating division should be contacted for further details such as training programme dates, venue, programme contents, level of participants, details of course fee and its payment etc.
- Admission to the course will be restricted to 20 participants on First-Come-First-Served basis. Participants are not allowed to attend the training course without written confirmation by the concerned division.
- Limited Hostel Accommodation on sharing and chargeable basis will be available on 'First-Come-First-Served' basis.

REGIONAL LABOUR INSTITUTE, TTTI P.O. TARANAMI, ADYAR, CHENNAI-600 113
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<tbody>
<tr>
<td>1.</td>
<td>Training programme on Management of Hazardous substances</td>
<td>November</td>
<td>I.H.</td>
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Abbreviations: I.H. – Industrial Hygiene

JULY-SEPTEMBER 2008
TRAINING CALENDER: DGFASLI

REGIONAL LABOUR INSTITUTE, LAKE TOWN, KOLKATA-700 089
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E-mail Address: regi_876109@bsnl.in

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<tr>
<td>1.</td>
<td>Workers Development Programme</td>
<td>November</td>
<td>SAFETY</td>
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<tr>
<td>2.</td>
<td>One Month Specialised Certificate Course in &quot;Safety &amp; Health&quot; for Supervisory working in Hazard Industries</td>
<td>November</td>
<td>I.H.</td>
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<td>3.</td>
<td>Occupational Health and environmental Medicine for Medical &amp; non-medical executives of the industries&quot;.</td>
<td>December</td>
<td>IND. MED.</td>
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</table>

Abbreviations: I.H. – Industrial Hygiene, IND. MED. – Industrial Medicine

REGIONAL LABOUR INSTITUTE, SARVODAYA NAGAR, KANPUR- 208 005
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<tr>
<td>1.</td>
<td>Training programme on Mineral Dust &amp; associated health hazards in industries</td>
<td>October 14-16</td>
<td>I.H.</td>
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<tr>
<td>2.</td>
<td>Workshop on work environment - its evaluation and control</td>
<td>October 21-23</td>
<td>I.H.</td>
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<tr>
<td>3.</td>
<td>One Month Certificate Course on Safety &amp; Health</td>
<td>November 04–December 02</td>
<td>SAFETY</td>
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<td>4.</td>
<td>Workshop On Safety Audit</td>
<td>December 02-04</td>
<td>SAFETY</td>
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<td>5.</td>
<td>Training programme on process safety management &amp; Inspection of Bulk Storage Facilities for hazardous substances for Inspector of Factories</td>
<td>December 15-19</td>
<td>SAFETY</td>
</tr>
</tbody>
</table>

Abbreviations: I.H. – Industrial Hygiene

GOVERNMENT OF INDIA, MINISTRY OF LABOUR & EMPLOYMENT DIRECTORATE GENERAL FACTORY ADVICE SERVICE & LABOUR INSTITUTES

The Directorate General Factory Advice Service & Labour Institutes (DGFASLI) is an attached office of the Ministry of Labour & Employment Government of India. DGFASLI organization was set up in 1945 under the Ministry of Labour, Government of India to serve as a technical arm to assist the Ministry in formulating national policies on occupational safety and health in factories and docks and to advise State Governments and factories on matters concerning safety, health, efficiency and well-being of the persons at workplace. It also enforces safety and health statutes in major ports of the country.

The Directorate General Factory Advice Service & Labour Institutes (DGFASLI) comprises:

- Headquarters situated in Mumbai
- Central Labour Institute in Mumbai
- Regional Labour Institutes in Kolkata, Chennai, Faridabad* and Kanpur

The Central Labour Institute in Mumbai functions as a socio-economic laboratory and is a national institute dealing with the scientific study of all aspects of industrial development relating to the human factors. Over the years the Central Labour Institute has constantly grown not only in size but also in stature and has earned national and international recognition. It has been recognised by the International Labour Organisation as a Centre of Excellence in training on Occupational Safety and Health in the Asian and Pacific Region. It also functions as a National Centre for CISS (International Occupational Safety and Health Information Centre) and the Centre for National Safety and Health Hazard Alert System. At the national level, apart from providing research and training support to the Government and functioning as a technical arm of the Ministry of Labour, the institute provides comprehensive and multi-disciplinary services to the Industrial Port sector through studies, technical advice, training and dissemination of information. It also runs National Referral Diagnostic Centre for early detection of occupational disorders and thereby controls and prevents them. The Regional Labour Institutes are a scaled-down version of the Central Labour Institute and cater to the needs of their respective regions.

The organization is poised to grow further, and meet the increased demands on it. In a developing country with a large number of industries having diverse and complex nature, the task of protecting safety and health of workers is an uphill task. Armed with the technology, good will of the industrial society and the strength of the dedicated staff, the organization is well prepared to meet the challenges of tomorrow. It is committed to the goal of making the workplace safer.

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* Being set up

JULY-SEPTEMBER 2008
<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>TITLE OF THE PROGRAMME</th>
<th>DATE</th>
<th>VENUE</th>
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<tr>
<td>2.</td>
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<td>19 – 21 Nov 2008</td>
<td>Chandigarh</td>
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<td>4.</td>
<td>National Workshop on Disaster Management</td>
<td>03 - 05 Dec. 2008</td>
<td>Delhi</td>
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<td>5.</td>
<td>Identification of Hazards and Assessment &amp; Control of Risk</td>
<td>10-12 Dec. 2008</td>
<td>Bangalore</td>
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</table>
Robert Owen (1771 – 1858)

Born 1771
Died 1858
Citizen, UK.

Robert Owen was born in Newton, Midwales, U.K. in the year 1771, in a family of businessmen. He became the owner of a Textile Factory called New Lanark Mills at young age. At that point of time, the working conditions in the factories were harsh and hazardous; workers were asked to work for longer hours (15 hours), children as young as 5 - 6 years were subjected to the same miserable conditions as that of adult workers.

Robert Owen was a progressive and humanistic business man who always held his employees in high esteem and did everything possible to provide better working conditions and quality of working life to them.

Being the owner of the company, he championed the cause of workers more than that of a trade union leader. He introduced major reforms in his factory to ameliorate their sufferings, in terms of reducing longer working hours and banning of employment of children below 10 years age besides banning their beating. His pioneering work in improving working conditions led to introduction of legislations on basic working conditions in factories in the beginning of 19th century in UK. Similar legislations in different parts of the world also can be proudly attributed to the pioneering efforts of Robert Owen. He was one of the first to manage rather than order his workforce and the first to attempt to gain agreement for his ideas rather than impose them on the workforce (a worker could not be fired for disagreeing with him). He was the first to grant autonomy and empower his managers, selected them carefully and trained them to be able to manage the business in his absence. His management style manifested some of the principles of today’s scientific management propounded by FW. Tailor in the early years of 20th century. He also authored several books and articles. Some of his notable works include 1) A new view of society, essays on the formation of human character 2) An address to all classes in the state 3) The revolution in the mind and practice of human race 4) The book of the new moral world, etc.

Robert occupies a curious position in the history of management thinking. Dismissed by his contemporaries and now little recognized apart from the linking of the name with that of Textile Company, his vision and foresight place him as the pioneer of management practices that are taken for granted, revered and practiced with much fanfare.

Owen’s lasting contributions may be best seen in the fact that it would be unthinkable for modern employers not to meet the practices he advocated. Therefore, he can be called as a paternalistic employer, philanthropist, progressive business man, pioneer of safety and personnel management, a champion of cooperative movement and a social reformer. ‘Though the safety fraternity has conveniently forgotten him for several decades, INDOISH NEWS proudly remembers this multi-faceted personality, fore-father of management thinking and salutes the departed soul for his immense contribution for enriching the lives of millions of working population across the world.’

Reference:

2. Wikipedia, Free Encyclopedia

Dr. E. Laxminarayan
Deputy Director (Staff Training & Productivity)
Central Labour Institute
Sion, Mumbai