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FROM THE DESK

The need for humanizing work and work environment in industry is increasingly being felt by the society in general and the working population in particular. The International Labour Organisation has all along been stressing upon the employers to take measures in order to have a reasonably humane work environment. Maintaining humane work environment at work place does not necessarily call for a lot of expenditure, but demands only some concern for the people without whom business cannot be run. Although it is easier to have the system in place if it is taken care of at the design stage itself, there are methods, which may ensure humanizing the work at a later stage even. The cover feature of this issue talks about the necessity of humanizing work at work place and also the role of DGFASLI in helping the managements to achieve the same.

The second article talks about developing an in-house audit system. In this era of self-regulation in the area of Occupational Safety and Health at work place, the industry should know, without involving any external agency, how effective is its safety programme, where, it may have gone wrong and where more attention will be needed etc. External audit should be treated as only complimentary to internal audit. The internal audit team should comprise people who have a general over view of the working of the industry as also those aspects of safety and health management, which are relevant to the industry. As such, this auditing should be done not only by professionals but also in a professional way. The present article gives the necessary know how in that direction.

(S.K. SAXENA)
EDITOR-IN-CHIEF

HUMANIZING WORK AND WORK ENVIRONMENT IN INDUSTRY: ROLE OF DGFASLI

S. K. SAXENA

(Extracted from the Keynote Address presented by the author as an invited speaker in the International Congress on Humanizing Work and Work Environment 2001, held at IIT Mumbai, India, December 11-14)

INTRODUCTION

In industries, the impact of human errors can be catastrophic. Whenever an accident occurs, the blame is directed to the operators, pilots or drivers concerned - and labelled as 'human error', although, the errors are caused by poor equipment and improper system design. Ergonomics is the area which investigates the causes of the errors / accidents and pay particular attention to the operators, designing tasks and equipment to minimize the chances of error or operating the wrong controls etc.

Even the simplest of products can be a nightmare to use if poorly designed. Our ancestors didn't have this problem. They could simply make things to suit themselves. These days, the designers of products are often far removed from the end users, which make it vital to adopt an ergonomic, user-centered approach to design, including studying people using equipment, talking to them and asking them to test objects etc. This is especially important with 'inclusive design' where everyday products are designed with older and disabled users in mind.

With the fast pace of advancement of science and technology and competitive market situations, mechanization and automation have already taken entry into the industrial premises around the globe. Technological development can produce effects on operators e.g. long term exposure to a stress can cause loss of efficiency with musculoskeletal disorders. Failure in the man machine interaction causes quicker fatigue, reduced work rate, lower productivity and in extreme cases accident. The scope of ergonomics is unlimited in the industry. Ergonomics can be used to reduce work stress and environmental stress at work

place. It can resolve man-machine interaction. It is possible to evaluate the energy cost of work and to recommend modifications for the adaptation of workload and environmental stress to human physiological systems. The objective here is to ensure workers health and safety with due consideration for improvement in productivity.

In India, with the problems of high population, illiteracy and level of poverty, there is a need for an approach, which is substantially different from those adopted by the advanced countries. Though mechanization and automation have already started taking entry into the Indian industrial situations, the entry of ergonomics simultaneously with mechanization and automation is very slow. However, some of the industries have adopted ergonomic principles to design their products. Few manufacturing industries are utilizing Indian body dimension standards to design their products. But in most of the other cases ,ergonomics is yet to pave its way.

Technological advances in recent years have led to the prevalence of computer and other electronic technologies in the everyday lives of people at work place, at home and in the school. (Forester, 1989; Fox, 1989; Postman, 1992). The recent technological innovations include the "Personal Digital Assistant" (Linderholm et al, 1992) and the inchoate fields of cyberspace etc (Gibson, 1984; Benedikt, 1992). These systems include screen-based equipment like monitors, microcomputers, laser discs, various optical disc formats and a plethora of peripherals and are commonly known as Visual Display Terminals (VDT). Though the VDT has made the operations easy, VDT workers without ergonomic approach lead to the development of various health hazards and musculoskeletal

disorders. Within the context of computer work environments, the individual disorders themselves are complex and represent a wide array of conditions that are commonly referred to as cumulative trauma disorders (CTD) or repetitive strain injuries (RSI). CTD are a class of injuries that arise from putting excessive stress on the body due to improper workstation design.

EMERGING AREAS OF ERGONOMICS RESEARCH

Ergonomics at Visual Display Terminal (VDT)

With the advancement of technology, work operations are becoming computerized. Workstations specially in the organized sectors are equipped with computers to make operations easy and effective. But working with computers require consideration of various human factors like body dimensions, height and distance of monitors from the operator, positioning of the source of light to prevent glare, etc. One of the most hazardous problems and newly emerging issues nowadays among the VDT workers is its health hazards. Improper workstation layout at VDT leads to the development of various problems like severe musculoskeletal disorders and other problems including eye problem, neck pain, back pain, etc. Scientific study on VDT is scanty in India.

Moreover, with the advancement of Information Technology, new and high performance computers are coming up and the old versions are becoming obsolete and lying idle in the office and laboratory premises occupying extra space and creating a hazardous environment. Studies on the safe disposal of old computers and accessories without effecting community health are required to be undertaken.

The DGFASLI organization has taken up a project on occupational health profile of the VDT operators. The study would highlight the physiological problems prevalent in improper VDT workstation and the study would suggest

suitable workstation from ergonomic point of view to minimize the health hazards.

Ergonomics in small-scale industries

India has a vast unorganized small-scale sector. The small industry sector employs larger workforce than that in the organized large industries (Nag, 2001). Working environment in the small-scale sectors is completely different from that of the organized large industries. Small-scale industries suffer from various problems like congested layout, manual work, improper workstation layout, lack of occupational health and safety considerations, etc. Some of the small-scale industries like jute, rice, beedi, glass, tea industries, etc. are very much important for the economic growth of the country. These industries demand improved workspace layout, adjustable work furniture, proper handling and storage of materials and machine guarding to ensure safety, health and productivity through ergonomic survey and implementation of low cost solutions based on ergonomic principles for the improvement of work environment.

The DGFASLI organization has been conducting various studies / projects in small-scale industries. Projects have been carried out on occupational health hazards in various small-scale industries. One undergoing National Study is surveying the existing health hazards of the beedi workers and possible automation / semi automation in the beedi making process.

Ergonomics of construction works

One of the major focuses of ergonomics research is in the construction area since it is directly related to manual material handling as well as workers' posture and health. A large number of accidents are reported every year during lifting and carrying of materials involved in construction works. Manual material handling is an expensive proposition abroad since it is related to workers' compensation, claims, treatment and settlements, etc. This problem has already reached India. In India, though the Labour law

recommends the limit of manual lifting of load but no scientific basis exists for the recommendation. Moreover, load lifting and carrying capacity varies according to sex, environmental conditions and duration of work.

One study on physiological cost of construction work was undertaken as a student's project where heart rate response of different construction works were observed. Extensive study is required on construction work regarding energy cost of work, material handling methods and limits.

Ergonomics in agricultural field

Agricultural research has already come out as one of the emerging areas in the field of ergonomic research. Various methods of technological know-how are implemented to improve work methods and tools used in the agricultural field. Machinery used and the work methods are potent factors since they are directly related to energy requirement of work as well as efficiency of the workers. Ergonomics in the agricultural field can provide occupational health and safety and reduce exposure to hazards through designing work rest cycle, correcting work posture by providing proper tools, devices and machineries.

ROLE OF DGFASLI ON HUMANIZING WORK AND WORK ENVIRONMENT

The Directorate General Factory Advice Service & Labour Institutes (DGFASLI), formerly known as the Office of Chief Adviser of Factories was set up in 1945 under the Ministry of Labour, Government of India with the objective of serving 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 Government 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, Kanpur and Faridabad.

The Central Labour Institute and the Regional Labour Institutes function as a socio-economic laboratory and are national institutes dealing with the scientific study of all aspects of industrial development relating to the human factors.

Research and consultancy studies in ergonomics and related field are carried out by the Institute in the following areas:

- Anthropometry and workstation design: Effective man-machine coordination depends on ergonomic design of the workstation. Continuous working on improper workstation layout leads to the development of musculoskeletal disorders and severe health problems. Workstations should be designed according to the human body dimensions. An extensive study has been conducted on anthropometry to generate suitable data pack on human body dimensions for workstation and equipment design. Presently, one of the National studies taken up by the DGFASLI is occupational health hazards of the VDT operators.
- Work Physiology: It deals with areas like work posture and musculoskeletal disorders, manual material handling and determination of optimum workload, etc. It also concentrates on physical work, its energy cost and effects on man so that suitable work-rest regime for various kinds of physical activities can be determined and also to select the right man for the right job. The DGFASLI is conducting various research/

- consultancy studies in different industries on this area.
- **Environmental Physiology:** It helps to identify and assess the impact of factors like heat, humidity, thermal radiation and movement of air in the working environment. Problems of heat stress are very common in some industries such as Iron and Steel Mills, Glass and Ceramic units, Forge shops, Foundries, Bricks and Tiles Factories, Thermoelectric plants, Cements, Coke ovens, Laundries, Mines and many others. There are many work places in these units where artificial hot climates are created as a requirement of some process. The DGFASLI is conducting various research/consultancy studies in different industries in this area to combat the problems of heat stress to ensure health and safety of the workers.
 - **Industrial Hygiene:** It determines the effect of dust, fumes, toxic gases, etc. on the pulmonary systems and working capacity of the exposed workers and suggests remedial measures. The Institute undertakes various studies / surveys, national projects to protect the health of industrial workers through identification, evaluation and control of occupational health hazards.

Apart from research and consultancy studies, the Institute is providing in-house and in-plant training programs around the year for humanizing work and work environment on various areas of occupational health, safety and productivity in the field of Industrial Ergonomics, Industrial Physiology, Industrial Medicine, Industrial Psychology, Industrial Hygiene, Industrial Safety, Industrial Productivity etc.

The organization is poised to grow further, and meet the increasing demands on it. In a developing country with a large number of industries having diverse and complex nature of operations, 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 to Humanize Work and Work Environment.

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***Shri S. K. Saxena, Director General,
Factory Advice Service & Labour Institutes,
Ministry of Labour, Govt. of India, Sion,
Mumbai.***

SETTING UP YOUR OWN AUDIT PROGRAMME

D.K.DAS

This article presents a strategy for designing and implementing Safety & Health Audit Programme– from establishing the programme’s mission, goals and objectives to match resources so that these goals and objectives are achieved.

ESTABLISHING THE AUDIT PROGRAMME’S MISSION, GOALS & OBJECTIVES

Over the past 5 to 10 years, most companies have been through a process to identify the mission of the organization. The mission statement can be thought of as the Constitution of the organization – the expression of vision and values. As such, the mission becomes the fundamental yard stick against which everything else gets measured. The mission statement varies from organization to organization . It may be any of the following :

- to be and stay first in market share.
- to produce the best at the lowest cost.
- to exceed all the customers’ needs and expectations.

Just as any organization should have a mission statement, so too, should the audit programme.

OBTAINING CONSENSUS OF PROGRAMME GOALS

If the mission statement is described as the Constitution, then the audit programme’s goals can be described as the law of the land. The audit programme could have many potential goals. A few of them are given below:

1. to reduce environmental impact and protect the environment.
2. to improve legal performance.
3. to enhance profit.

4. to train / develop staff.
5. to protect management.

The audit programme should have both short term and long term goals. In the short term, the audit programme may focus on eliminating the problems operations in meeting compliance requirements. In the long term, the audit programme may identify management systems’ weakness in a way that not only improves performance but also enhances efficiency and competitiveness. A well facilitated meeting results in insightful discussions. These discussions illuminate the necessary goals and objectives and allow reaching consensus.

CLARIFYING INDIVIDUAL AUDIT OBJECTIVES

The objectives for individual audits need to be clear. Audit team members need to know whether individual audits will :

- Verify compliance with applicable Laws & Regulations.
- Identify environment, health & safety hazards and proposed control strategies.
- Recommend improvements.

Often when a company is first establishing its auditing programme, the focus is on identifying problems so that they can be corrected.(Fig-1) As the audit programme evolves, the emphasis moves from identifying problems to determining compliance status and then the effectiveness of the management control systems. Table – I below provides a list of various reasons why companies have established auditing programme.

Table-I

Typical Audit Objectives

	Management System Audits	Compliance Review	Process Safety Audits
Help improve overall process safety performance at operating facilities.	(X)	X	(X)
Determine and document compliance status with respect to established requirements or criteria.	(X)	(X)	X
Increase the overall level of process safety awareness.	(X)	(X)	(X)
Accelerate the overall development of process safety management and control system.	X	(X)	(X)
Improve the process safety risk management system.	X	X	(X)
Develop a basis for optimizing the process safety resource.	(X)	(X)	(X)

LEGEND: X - Primary Objective
(X) - Secondary Objective

When the mission, goals and objectives are clearly and commonly understood, the next task is to identifying/matching resources.

MATCHING RESOURCES TO MEET THE AUDIT PROGRAMME'S NEEDS

After clearly identifying the audit programme's mission, goals and objectives, the next task involves finding the right people to make it all happen. The programme will need a audit team leader and audit team members. Their responsibilities are given below :

Audit Team Leaders' responsibilities :

1. Select team members, sign audit responsibilities, gather and distribute background information and schedule team meeting.
2. Review legal regulations and company policies and procedures.
3. Lead open meeting presentation..
4. Understand the context for and meaning of each finding report by the team..
5. Lead exit meeting, summarize reporting schedule and format.
6. Review of working papers to ensure that all topics were covered and that all findings are corroborated by the working papers.
7. Prepare and distribute draft report, incorporate comments wherever appropriate into the final report.

Team Members responsibilities:

Pre audit activities :

1. Attain pre audit team meeting.
2. Prepare for the audit by reviewing appropriate rules and regulations, company policies and procedures and available background information activities.

On site activities :

1. Perform duties assigned by the team leader during the audit.
2. Report on progress to the team leader throughout the audit including any problems encountered.
3. Summarize all your findings and report them to the team leader before the exit meeting.

Post audit activities :

1. Review draft audit reports for wording changes.
2. Provide input as and when necessary findings in the draft report are challenged.

DESIGN AND IMPLEMENTING AUDIT TOOLS AND TECHNIQUES

With resources known, the next process involves developing the tools and techniques necessary for consistent and effective audit. The tools and techniques that are fundamental to Health & Safety Audit are given below :

1. Using audit questionnaire, check list and protocol for working.
2. Writing working paper worth reading.
3. Conducting meaningful interview.

In addition to the applicable laws & regulations, the tools used by the auditors in the field are health & safety audit questionnaire, checklist and protocols. Audit protocols provide detailed instruction to the auditors, indicating not only what to look at but also how to look.

The basic phases of an audit process has been illustrated in fig.-2(a) &(b).

WORKING PAPERS

The auditor's field notes or working papers are critical components of every audit , It should fully document what the team accomplished while on site :

1. What was looked at
2. Who was spoken to
3. What findings were identified and shared with plant management.

There are a few basic habits to instill in auditors for developing effective working papers.

1. Note who was interviewed, what documents were interviewed and what equipment was inspected.
2. Include exhibits.(photographs of key documents)
3. Summaries the conclusions for each issue evaluated.
4. Keep the notes organized.

Fig-3 provides an example of a summery sheet presented to a board(as a part of a detailed audit results presentation) of one company's safety performance as reflected in the audit results.

INTERVIEWING TECHNIQUE

During any audit, a tremendous amount of information gathering occurs through interviews. As a result, interviewing skills dramatically affect the effectiveness of any auditor and audit team. Emphasizing the following habits of highly effective interviewers can significantly improve the effectiveness of each audit.

1. Plan the interview –.
2. Ask open-end questions –
3. Summarize the information received --
4. Make sure the interviewee is comfortable –
5. Document the results of the interview

The ability of each auditor individually, and the audit team collectively, to practice these habits will improve the quality and quantity of information gathered.

The auditor should have a fair knowledge about the responsibilities of the different departments of the industry in respect of safety and health. He may use the following 'COORDINATION MATRIX' to ensure safety and health responsibilities of different functionaries. (Table-II).

Table-II

COORDINATION MATRIX

Function	Safety	Engineering	Operation	Maintenance	Management
1.Incident investigation	S	S	R	R	A
2.Education and Trg.	S	S	R	R	A
3.Process Safety Standards for Equipment,Work Methods etc.	S	I	R	R	A
4.Inspection to identify hazards.	S	I	R	I	A
5.Fire and Emergency	R	I	R	S	A
6.Maintenance	I	I	I	R	A
7.New Equipment	I	R	R	S	A

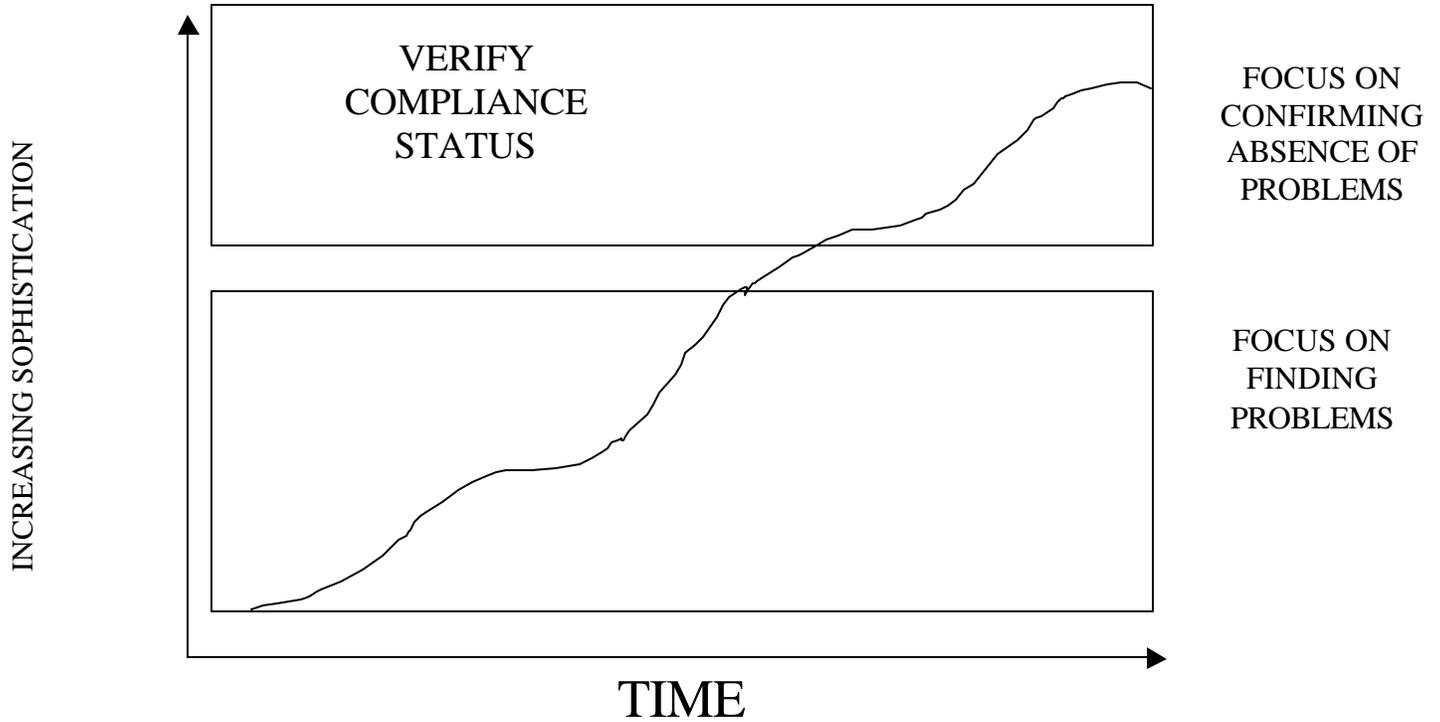
LEGEND

A- AUTHORITY S- SUPPORT
R- RESPONSIBILITY I- INFORMATION

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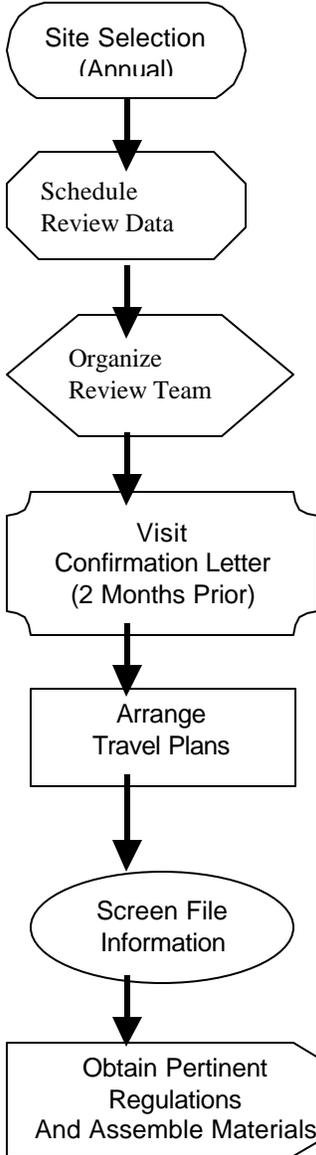
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MANAGEMENT
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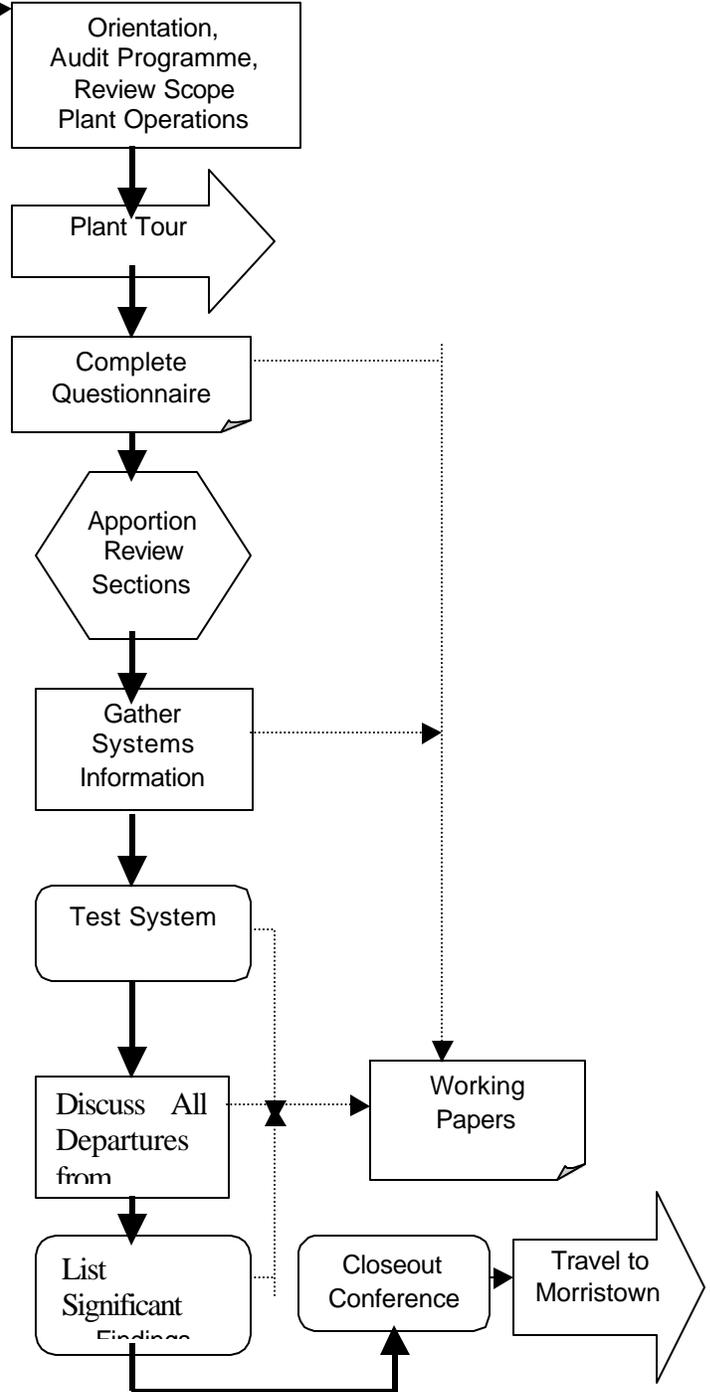
NATURAL EVOLUTION OF AUDIT
PROGRAMS

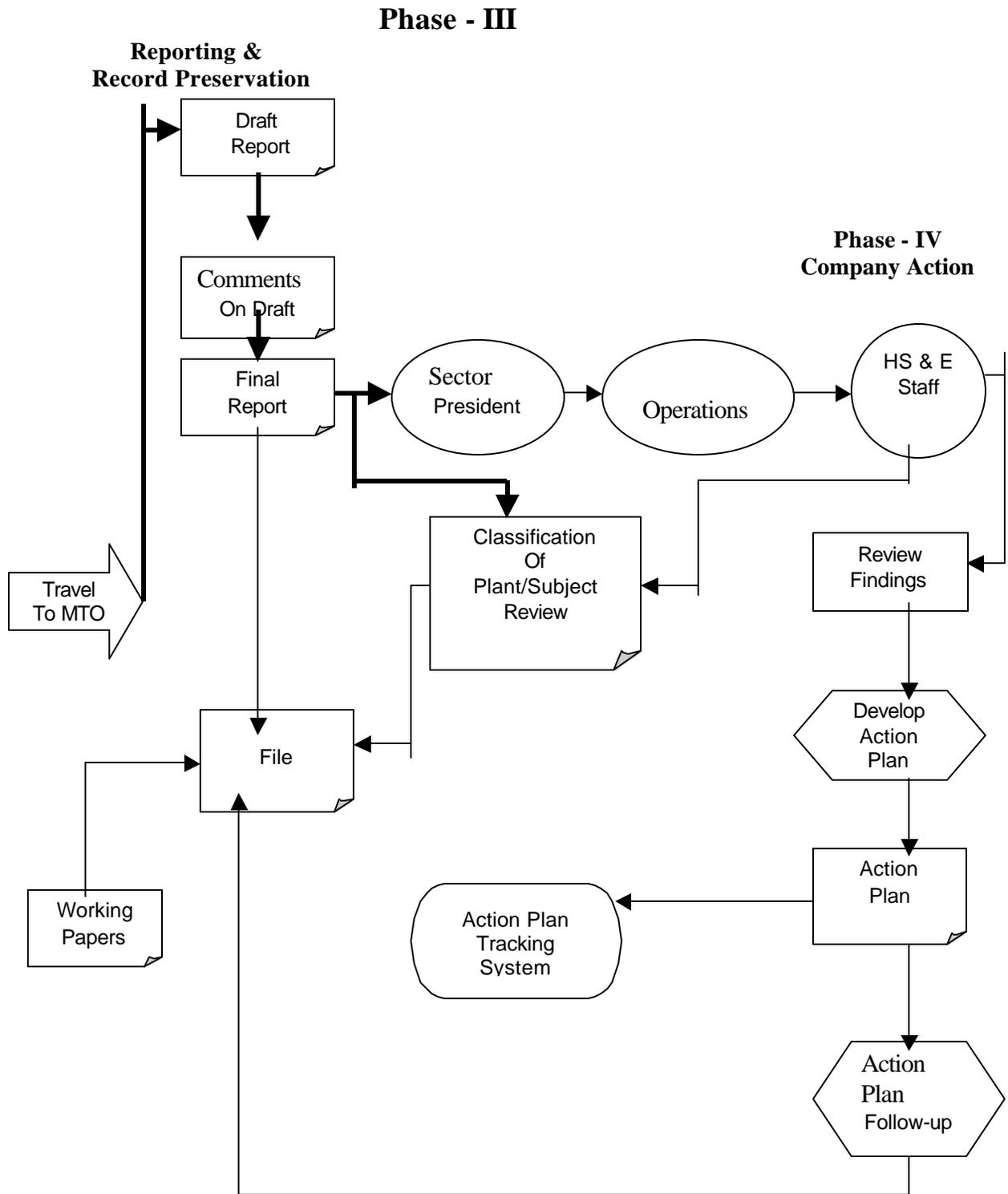
FIGURE - I

**PHASE – I
PREPARATION**



**PHASE - II
ON-SITE REVIEW**





(Continued) Phase III & IV

Figure 2B

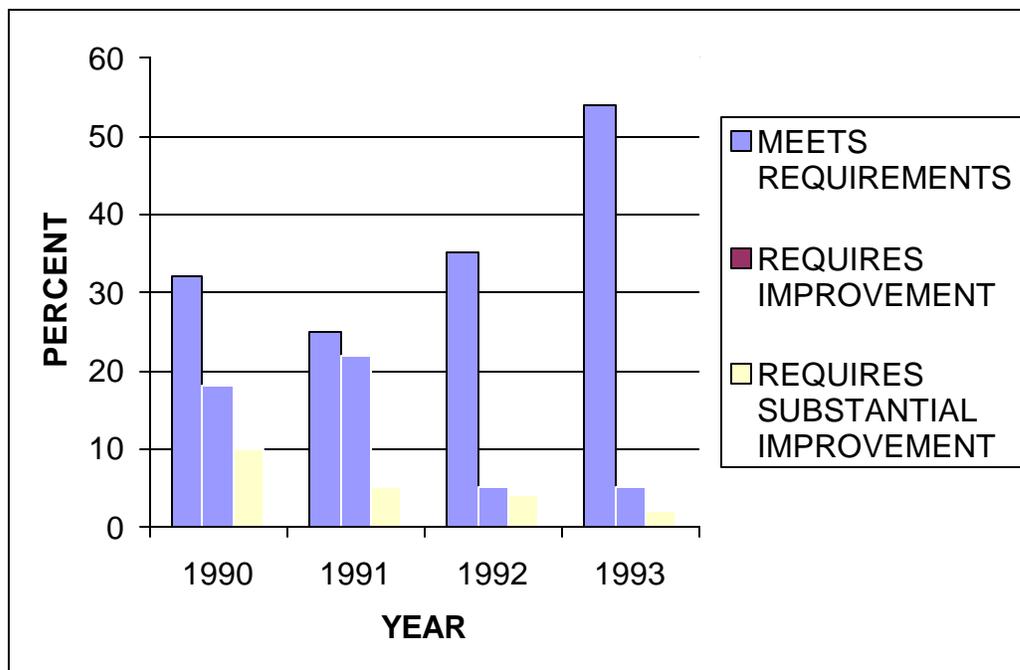


FIGURE III

Shri D.K.Das
 Director Incharge
 Regional Labour Institute, DGFASLI
 Kolkata

EVALUATION OF WORK ENVIRONMENT IN TRANSPORT AIRCRAFT MAINTENANCE PLANT

This study was conducted by Regional Labour Institute, Kanpur, in a Transport Aircraft Division to carry out the follow up assessment of the work environment in electroplating shop.

OBJECTIVE

The objectives of the study were to evaluate the levels of airborne contaminants in different work areas in electroplating, plastic and composite shops and to suggest control measures if required to further improve the work environment.

OBSERVATIONS

Monitoring of cadmium, cyanide, chromic acid, sodium hydroxide and trichloro ethylene were carried out in electroplating shop whereas the samples of xylene, styrene, epichlorohydrin and dust were collected from plastic and composite shops. In plastic shop, different resins were used in the fabrication of components. Local exhaust system has been provided for grinding, drilling machines but it was not effective. The composite shop is in AC area and the use of resin-impregnated fibres caused the concentration of epichlorohydrin in the work area.

METHODOLOGY

The levels of airborne contaminants- cadmium and cyanide on cadmium plating tank, hydrochloric acid on pickling tank, chromic acid on hard chrome tank, trichloroethylene on vapour degreas tank, xylene on paint bath were within permissible limits of exposure of respective contaminants in electroplating shop whereas on chemical milling, the average concentration of sodium hydroxide was found to be 11.48 mg/m^3 which exceeded the permissible unit of exposure i.e. 2.0 mg/m^3 for sodium hydroxide. On wet lay up in plastic

shop, the levels of epichlorohydrin and styrene were within PLE. But on grinding tables and grinding machines, the airborne dust exceeded PLE i.e. 10 mg/m^3 . In composite shop, the concentration of epichlorohydrin was also within PLE i.e. 2.0 mg/m^3 .

RECOMMENDATIONS

Several recommendations have been given in the report to improve the work environment of the areas chosen for the study. Some of the main recommendations are; improvement in local exhaust systems on chemical milling and acid etching plant in electroplating shop and grinding, drilling etc. in plastic shop, suitable neutralization/scrubbing of contaminants before discharging into the atmosphere, portable local exhaust system for plastic and composite shop on wet lay up and manual grinding, improvement of general ventilation in zero hanger, suitable personal protective equipments for the employees working on hazardous chemicals, and material safety data sheet (MSDS) in the prescribed format for all hazardous chemicals handled or used in the factory.

EVALUATION OF FIBRE DUST LEVELS IN A INDUSTRY PRODUCING ASBESTOS CEMENT CORRUGATED SHEETS

This study was conducted by Regional Labour Institute, Chennai, as a consultancy study.

The factory was engaged in the production of asbestos cement corrugated sheets for roofing and other applications. The process involved use of asbestos fibres in bulk quantities. Asbestos fibre, cement, fly ash, pulp and dry waste were used as raw materials in the process. The process involved potential exposure of workers to the asbestos fibre dust in various operations such as fibre bag – handling and feeding, reclamation, ball mill area, filing of AC sheets, etc.

OBJECTIVE

The study was conducted with the objective to evaluate the levels of asbestos fibre in work and general environment and to suggest remedial measures wherever necessary to improve the environmental conditions.

OBSERVATION

The average levels of asbestos fibres in almost all the areas such as fibre feeding area, reclamation area, ball mill area, filing of AC sheets and in general environment were found in the range of 0.01 to 0.08 fibres/cc. All these concentrations were well below the permissible limit of Exposure for asbestos fibres i.e. 1 fibre/cc.

RECOMMENDATIONS

In view of the health hazards posed by asbestos fibres, certain remedial and control measures had been suggested which include maintenance of exhaust and vacuum cleaning system in good condition, advice to workers engaged in handling of fibre bags to carefully handle the bags, to repair the damaged bags immediately with adhesive tapes, to perform the manual operations such as breaking of damaged/waste sheets, cutting and filing of AC sheets in wet condition after adequate spray with water, etc. In addition, certain other remedial measures such as effective use of respiratory PPE among the workers, display of cautionary notice boards, regular work environment monitoring and periodic medical examination of workers were also suggested.

STUDY ON PROCESS SAFETY IN A PESTICIDE INDUSTRY

This process safety study was conducted by Regional Labour Institute, Chennai.

The factory was engaged in the formulation of Endosulfan, Chlorpyrifos, Quinolphos, Cypermethrin, etc. as emulsifiable concentrate and dust powder such as Carbendazim, Sulphur, Benomyl, Acephate, etc. Flammable solvents such as Cyclohexanone, Aromax, C-IX, Xylene, etc. were stored in bulk quantity.

OBJECTIVE

The study was conducted with the objective to study the manufacturing process and operating conditions that could lead to accidents causing losses to environment, human life and property and to suggest remedial measures wherever necessary to improve the safety performance of the plant and to safeguard the health and safety of the workers.

OBSERVATION

Deficiencies were observed in process control, handling and storage of chemicals, etc.

RECOMMENDATIONS

Various remedial measures were suggested to rectify the deficiencies which include provision of a crate type arrangement for handling the drums of

pesticide technical, provision of a temperature indicator with hot water bath, an overflow pipe with the formulation tank, repair of floors with proper slope towards the drain, proper and regular maintenance of pumps and valves and regular replacement of rubber seals in flanges/valves, etc.

Remedial measures suggested also include display of safe operating procedures for unloading the tanks, maintenance of the dykes, use of non-metallic, non-sparking rod for level measuring etc

On 20.10.2001 an operator of a payloader was engaged in the operation of payloader of a company in a hatch of a vessel anchored at mid stream .He met with an accident due to falling of timber logs on the cabin of the above payloader in which the victim was present. As a result, the cabin was broken and the victim had serious injuries and died on the spot.

A prosecution was launched against the employer.

Timber logs were being discharged from a vessel berthed at the portside of a Port on 18.10.2001. The work for the discharge of logs commenced from a Hatch. The logs on the port side were slung and lifted by a Derrick at the above hatch forepart and placed in the centre of the hatch. The cargo was then lifted out of the hatch using the ChPT S1 shore crane of 10T,SWL. The logs were hooked on to the shore crane and when the logs were lifted out of the hatch, fell into the hatch. The logs fell on a mazdoor working in the hatch, resulting in his death.

A warning letter was issued to the crane driver.

On 24.8.2001, a private labour who was sleeping at the plinth area opposite to the berth of a Port was hit by a wheel of a truck loaded with rice bags while taking the truck in reverse. The victim got serious injuries and succumbed to his injuries.

The driver of the truck has been warned for contravention of Regulation 57(8)(b) of Dock Workers (Safety, Health and Welfare) Regulations, 1990.

On 14.5.2001, a private labour was hit and run over by a dumper on the road between the warehouses of a Port when the victim along with a fellow worker was going on a bicycle. The victim got serious injuries and died. The fellow worker who was riding a bicycle, got minor injuries.

A warning letter has been issued to the dumper driver and the cyclist.

On 21.10.2001, a cleaner and a driver of a truck were run over by a truck on the central road at the end of the berth of a Port. As a result, the cleaner succumbed to his injuries on the spot and the driver was injured.

Warning letter has been issued to the driver of the truck and the employer of the worker.

On 16.10.2001, during the second shift, loading of steel pipes was going on. For the purpose of loading, a fork lift of 5T capacity was used for discharging from the ground and loading on to the trailer. After loading all the pipes on the trailer, the driver and the cleaner of the trailer and another worker were lashing the stack of pipes on the trailer with chain. When they were tightening the stack with the chain, the chain snapped and the pipes rolled down on both sides of the chassis collapsing the stanchions on both sides. Due to roll over of the pipes from the trailer onto the ground, the driver and the cleaner sustained injuries and the other worker died on the spot.

The employer of the dock worker was warned for contravention of Regulation 66(4) and 91(6).

TRAINING PROGRAMME ON OCCUPATIONAL HEALTH FOR NURSES, HEALTH/MEDICAL ASSISTANTS

INTRODUCTION

Occupational health care of industrial workers is no longer a matter of welfare, but has been proved to be related to growth, productivity and national prosperity. In our country – a developing nation – occupational health care of working population, therefore, is more significant. To achieve this goal, Factories Act & Rules have been amended and reinforced to provide for regular monitoring and medical surveillance of workers to protect occupational health of workers, prevention of occupational disorders, etc. Regular medical examinations, specific tests, record keeping and regular review have become essential. It is, therefore, necessary that “NURSES HEALTH/MEDICAL ASSISTANTS, ETC”- the most important link of health care, system, having adequate basic training of health management, disorders and their care, etc. are equipped in terms of knowledge and skills in occupational health practice, so that they provide the needed assistance to the Factory Medical Officer, workers etc.

In view of this, Govt. of India, Ministry of Labour, DGFASLI has decided to organize specially designed “Training in Occupational Health for Nurses, Health/Medical Assistants etc.” to equip them with needed specific knowledge and skill for their effective contribution in medical surveillance programmes of industrial workers.

OBJECTIVES AND METHODS

The training programme aims at equipping the participants through class-room lectures by faculties drawn from the Institute, eminent

guest faculties, practical training on conducting various special tests such as audiometry, lung function test, vision testing, etc. It is expected that on completion of the training, the participant will be able to provide the needed support to the medical surveillance system of the organization.

HIGHLIGHTS

- Occupational Diseases with special reference to notifiable occupational diseases.
- Health related provisions under the factories act and rule.
- Epidemiology
- Medical surveillance of industrial workers (medical examination)
- Data recording
- Organisation of occupational health services
- Effective communication, industrial hygiene and industrial psychology
- Practicals – Hearing management, Heat stress management, Lung function testing, Vision testing and other special tests.
- Field visits

DURATION: 2 weeks

**Conducted by:
Industrial Medicine Division
Central Labour Institute,
Sion, Mumbai.400022**

INTERNATIONAL OCCUPATIONAL SAFETY AND HEALTH INFORMATION CENTRE (CIS)

CIS (from the French name, Centre international d'Information de 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:

- Microfiches on original documents abstracted in CIS DOC (CISILO)
- ILO CIS Bulletin "Safety and Health at Work"
- Annual and 5-year indexes
- The CIS Thesaurus
- The list of periodic als abstracted by CIS

EXCERPT FROM CIS DOC

Title: Refuse collection with selective sorting: What impact on working conditions? – Ergonomic study(1)

CIS ACCESSION NUMBER

CIS 01-1246

ABSTRACT

Refuse collection involving selective sorting is increasingly practiced for economic reasons. An ergonomic study of the conditions of municipal waste collection with a novel concept truck having a lowered cabin and no rear step, was conducted by observing the activities of waste collectors and the driver, measuring the pulse rate, the distance covered and the sound level. The observation enabled the highlighting of gaps between job descriptions and the tasks effectively carried out, and revealed dysfunctions, in particular with respect to some of the work postures. On the basis of pulse rate measurements, the activity is classified as being "strenuous" or "very strenuous". One of the waste collectors covered a distance of 16.8 km while running. Noise dosimetry reveals a high level of noise exposure. The new job descriptions and the numerous dysfunctions caused by the new equipment (in particular without rear steps) increased the strenuousness of the work. The results were taken into account by the waste collection company, which required the manufacturer to modify the trucks and truck cabins.

Note:

For details write to CIS National Centre for India, Central Labour Institute, Sion, Mumbai 400 022.

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.

**PRODUCT NAME(S) : PHENOL
SYNTHETIC**

HAZARDS IDENTIFICATION

Colorless to pink liquid; white to light pink solid crystal (depending on temperature). Aromatic odor. Combustible. May be fatal if absorbed through skin. May be fatal if swallowed. Causes severe eye and skin burns. Harmful if inhaled. Causes respiratory tract irritation. Toxic fumes are released in fire situations. Vapors may travel a long distance; ignition and/or flash back may occur. Clear all personnel from area. Overheating of transport vehicles and storage vessels must be prevented.

POTENTIAL HEALTH EFFECTS

EYE: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.

SKIN: Short single exposure may cause severe skin burns. Rapidly absorbed through skin in amounts which could cause death. Signs and symptoms of excessive exposure may be central nervous system effects

INGESTION: Single dose oral toxicity is considered to be moderate. Small amounts swallowed incidental to normal handling operations may cause serious injury; swallowing amounts larger than that may cause death. May cause severe burns of the mouth and throat.

INHALATION: A single prolonged (hours) excessive inhalation exposure may cause adverse effects. Vapors or mists may cause irritation of the upper respiratory tract (nose

and throat) and lungs. Signs and symptoms of excessive exposure may be central nervous system effects.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Repeated excessive exposure may cause central nervous system effects (including respiratory, motor difficulties, and paralysis), digestive disturbances, liver and kidney effects.

CANCER INFORMATION: Did not cause cancer in laboratory animals.

TERATOLOGY (BIRTH DEFECTS): Phenol has been toxic to the fetus in laboratory animals at doses nontoxic to the mother. Birth defects (cleft palate) were seen in mice at maternally lethal doses. This is a common developmental abnormality in mice and is associated with stress to the maternal animal.

REPRODUCTIVE EFFECTS: In animal studies, phenol did not interfere with reproduction. Toxicity to the newborn animals was observed at doses that were toxic to the maternal animals.

FIRST AID

EYE: Immediate and continuous irrigation with flowing water for at least 30 minutes is imperative. Prompt medical consultation is essential.

SKIN: Immediately wash thoroughly any size exposure with non- abrasive soap and large quantities of water for 30 minutes while removing contaminated clothing and shoes. Destroy items which cannot be decontaminated, such as shoes. Further amounts of phenol/phenolics may be removed from the skin by repeatedly spraying/swabbing the skin with polyethylene glycol or poly- propylene glycol mixture, alternating with rinsing with large quantities of water for 30 minutes.

INGESTION: Do not induce vomiting. Give one cup of water or milk if available and transport to a medical facility. Do not give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

HAZARDOUS COMBUSTION PRODUCTS:

During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to hydrocarbons, carbon monoxide, carbon dioxide and benzene compounds. Hazardous combustion products may include trace amounts of hydrocarbons.

OTHER FLAMMABILITY INFORMATION: Dense smoke is produced when product burns. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur.

EXTINGUISHING MEDIA: Water, water fog or fine spray, carbon dioxide, dry chemical, foam. Alcohol resistant foams (ATC type) are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively. Water fog, applied gently may be used as a blanket for fire extinguishment.

MEDIA TO BE AVOIDED: Do not use direct water stream.

FIRE FIGHTING INSTRUCTIONS

Keep people away. Isolate fire area and deny unnecessary entry. Cool surroundings with water to localize fire zone. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog applied gently may be used as a blanket for fire extinguishment. Do not use direct water stream. May spread fire. Stay upwind. Keep out of low lying areas where gases (fumes) can accumulate.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely,

change to full chemical resistant clothing with SCBA. This will not provide sufficient fire protection, consider fighting fire from a remote location. For protective equipment in post-fire or non-fire clean up situations, refer to the relevant sections.

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION: Use chemical goggles. Wear a face-shield which allows use of chemical goggles, or wear a full-face respirator, to protect face and eyes when there is any likelihood of splashes. Eye wash fountain should be located in immediate work area.

SKIN PROTECTION: Use protective clothing impervious to this material. Selection of specific items such as faceshield, gloves, boots, apron, or full-body suit will depend on operation. Use gloves, impervious to this material, at all times. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse. Items which cannot be decontaminated, such as shoes, belts and watchbands should be removed and destroyed.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator.

A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

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.400022. MSDS on about 1,20,000 chemicals/materials are available with Central Labour Institute. Computer printout will be supplied on nominal charge basis.

LIBRARY AND INFORMATION CENTRE

The Library-cum-Information Centre of Central Labour Institute has unique and rare collection of different kind of publications in the field of Occupational Safety, Health, Management and allied subjects. It also has a good collection of different standards, codes, regulations on these matters. In the current year the centre is subscribing to 25 Indian & foreign journals, besides receiving complimentary copies of different periodicals from all over the world. The centre provides facilities for study and research and at the same time supplies authentic and up-to-date information on Occupational Safety, Health and Management. It also extends reading facilities to students & scholars attending different training programmes & courses conducted by CLI. From January 2001 till date a number of publications in the field of OS&H have been added to Library. Some of them are :

SAFETY LEGISLATION IN CHEMICAL INDUSTRIES

Author: S.S. Mankar

Publisher: Mrs. Jyoti S.Mankar, New Panvel, Maharashtra.

The chemical and related industries occupy a key position in the economic life of a nation. The phenomenal growth in the number of volume of chemical industries, many of which are engaged in the production, storage, handling and transportation of hazardous chemicals has tremendously increased risk rate of chemical hazards. An important duty has been cast on the industry to ensure best safety measures which do not jeopardize human habitations and environment around them. To achieve this goal, the Government Agencies and the industries have to work together for strict compliance of various safety legislations. There are several legislations covering safety and health of workers, general public

and protection of general environment. This book "Safety Legislation in Chemical Industries" is a comprehensive compilation of these statutes. It also contains important information such as Material Safety Data Sheets of 25 basic and most frequently used chemicals, Fire Protection Manual 1997, Plant Inspection Checklist, Hazardous Area Classification, Colour Codification for Pipelines. This will enable managements of factories specially those handling chemicals to discharge their statutory obligations more effectively. This book will also be useful as a reference book not only to the chemical industries but also to the students of Chemical Engineering.

Indian Standard –OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS – SPECIFICATION WITH GUIDANCE FOR USE

Publisher- Bureau of Indian Standards, New Delhi

Health and Safety is one of the most important aspects of an organisation's smooth and effective functioning. Good health and safety performance ensures an accident free industrial environment. With the continuous and untiring effort of various legislative authorities as well as NGOs, the awareness of Occupational Health and Safety (OH&S) has improved in the India considerably.

Considering this fact this standard intends to assist the organisations to develop a systematic approach to management of OH&S in such a way as to protect their employees and others whose health and safety may be affected by the organisations' activities. This standard also intends to improve OH&S performance of an organisations by providing the requirements and guidance for use.

Govt. reformulating welfare scheme for beedi workers

The Union Labour Minister, Sharad Yadav, has claimed that more than one lakh agricultural workers have been covered under the 'Krishi Shramik Samajik Yojana' since its launch in July, 2001.

Addressing a meeting of the Parliamentary Consultative Committee of his Ministry, he said the Government was concerned that the majority of the workers in the unorganized sector were not covered under any welfare scheme. However, there were five welfare funds in operation for beedi workers, cine workers and non-coalmine workers who constituted a small portion of the 37 crore-strong unorganized workforce. These funds cater to their health and sanitation, housing, water supply and educational needs.

Mr. Yadav said the number of workers who depended for their survival on beedi-making exceeded 44 lakhs.

The Government was reformulating the welfare scheme to make things simpler, besides ensuring that the benefits percolated through to the grassroots. From April 2002, the insurance cover provided to them has been enhanced from Rs.3,000 to Rs.10,000 in case of natural death.

Other government initiatives included decentralization of the Beedi Workers Welfare Fund. This has been done by making the district unit the nodal point for implementation of the scheme. Lack of awareness has been identified as the reason for the benefits not reaching the intended beneficiaries.

The help of the State Government was also being sought to create awareness.

The Government informed the members that the introduction of the unique social security number by EPFO would facilitate enrolment of construction workers for EPF benefits.

On the demand made by the members to create welfare funds for unorganized workers engaged in different occupations, the Labour Secretary, Vinod Vaish, said ways have to be explored for financing the welfare funds.

The major hurdle was that unorganized workers were financially so fragile that imposition of any cess would be detrimental to them.

Some members urged the Government to set up welfare funds for agricultural workers and those employed in the salt industry, fish processing industry and fish farms.

They advised the Government to streamline the procedure for availing benefits.

Source: The Hindu

PRODUCTIVITY DAY

The productivity day was celebrated at RLI, Chennai on 19th March, 2002. All the officers and staff members of the Institute participated in the celebration. S/Shri Paneerselvam and Mahalingam, Jt.Chief Inspectors of Factories, Government of Tamilnadu addressed the participants on the “Role of Safety and Health for Productivity in the office”.

FIRE SAFETY WEEK

The Fire Safety Week was observed from 15th to 19th April, 2002 at Central Labour Institute, Mumbai. The programme was inaugurated by a senior officer of DGFASLI on 15th April 2002 at Central Labour Institute auditorium . The inaugural session was followed by technical session in which two resource persons spoke on the subject of Fire. Shri B.S.Khade, Divisional Fire Officer, Mumbai Fire Brigade, Mumbai spoke on “Fire Safety”. and Shri A.D. Ghorpade , Manager (Fire and Safety), Hindustan Petroleum Corporation Ltd, spoke on “Safe use of LPG and Safety in Offices”. The concluding session of the Fire Safety Week was observed on 19th April, 2002 in which the Director General, DGFASLI

chaired the session. Two speakers - Shri L. Bhaskaran, Assistant Manager, LPA, Mumbai and Shri S.S.Mankar. Ex-Manager (Safety), Hindustan Organic Chemicals Ltd, Rasayani spoke on “Fire Accidents and Case Studies” and Fire Fighting System and Mock Drill, respectively. Their presentations were interesting and informative and all the participants liked their deliberations. The Fire Safety Week was attended by the officers and staff members of DGFASLI, CLI & IDS and Pay & Accounts Office & CPWD.

ILO/JAPAN NATIONAL WORKSHOP

The ILO/Japan National Workshop on Occupational Safety & Health – Management System (OSH-MS) was held at Central Labour Institute from 21st to 23rd May 2002. The programme was inaugurated by Shri K. Chandramauli, IAS, Joint Secretary, Government of India, Ministry of Labour. The workshop was attended by 24 participants from Government, Employers organizations and Trade Unions. The workshop was also attended by 4 officers of CLI and DGFASLI.

TRAINING PROGRAMMES
JULY-SEPTEMBER 2002
CENTRAL LABOUR INSTITUTE ,SION, MUMBAI

Programme title	Contact person
Diploma in Industrial Safety-2002-2003	Director (Safety) & Incharge Indl. Safety Division
Associated Fellowship of Industrial Health	Director (Medical) & Incharge Indl. Medicine Division
Handling Problem Behaviour of Employees	Director (Indl.Psychology) & Incharge Indl.Psychology Division
Safety & Health Management in TPP	Director (Indl.Hygiene) & Incharge Indl..Hygiene Division
Occupational Physiology - its application in Industry for promotion of Safety, Health & Productivity	Director (Physiology) & Incharge Indl.Ergonomics Division
Workshop on Safety Audit on Environmental Management System	Director (Safety) & Incharge Indl.Safety Division
Workshop on Safety Audit on Environmental Management System	Director (Safety) & Incharge Indl.Safety Division
Counselling Skills	Director (Indl.Psychology) & Incharge Indl.Psychology Division
Workshop on Occupational Health & Safety Management System	Director (Safety) & Incharge Indl.Safety Division
Managerial Effectiveness for Higher Productivity & Quality	Director (Productivity) & Incharge Productivity Division
Evaluation & Control of Hazards in Drugs Pharmaceutical Industry	Director (Indl.Hygiene) & Incharge Indl.Hygiene Division
Training programme on Hazards & Operability (Hazop) Studies	Director (Indl.Hygiene) & Incharge Major Accident Hazard Control Advisory Division

Programme title	Contact person
Ergonomics	Director (Physiology) & Incharge Incl.Ergonomics Division
Fatigue & Driving - a Concept of Safety, Health & Productivity at Work	Director (Physiology) & Incharge Incl.Ergonomics Division
Team Building for Health, Safety & Welfare at Work	Director (Staff Trg.) & Incharge Staff Training Division
ISO-9000 QMS & OSHAS-18001	Director (Productivity) & Incharge Productivity Division
Behavioural Skills for Safety & Health Professionals	Director (Incl.Psychology) & Incharge Incl.Psychology Division
Training programme on Occupational Health for Nurses/Medical Assistants	Director (Medical) & Incharge Incl. Medicine Division
Training programme on Industrial Safety for National Safety Council, Maharashtra Chapter	Director (Safety) & Incharge Incl.Safety Division
Occupational Physiology - its application in Industry for Promotion of Safety, Health and Productivity	Director (Physiology) & Incharge Incl.Ergonomics Division
Industrial Heat	Director (Physiology) & Incharge Incl.Ergonomics Division

**TRAINING PROGRAMMES
JULY TO SEPTEMBER 2002
REGIONAL LABOUR INSTITUTE ,LAKE TOWN
KOLKATA**

Programme title	Contact person
Workshops on Monitoring of Work Environment	Director Incharge
Workers Development Programme	Director Incharge
Training programme on Emergency Planning & Preparedness in MAHC Installation	Director Incharge
One month certificate course on Safety & Health for Supervisory Personnel working in Hazardous Processes.	Director Incharge

**TRAINING PROGRAMMES
JULY TO SEPTEMBER 2002
REGIONAL LABOUR INSTITUTE , CHENNAI**

Programme title	Contact person
Diploma Course in Industrial Safety	Director Incharge
Training programme on Safety Audit	Director Incharge
Training programme on Major Accident Hazard Control	Director Incharge

**TRAINING PROGRAMMES
JULY-SEPTEMBER 2002
REGIONAL LABOUR INSTITUTE, KANPUR**

Programme title	Contact person
Post Diploma Course in Industrial Safety	Director Incharge
Training programme on Industrial Safety & Hygiene	Director Incharge
Training programme on Chemical Safety for Managers and Safety Officers from Chemical Plants	Director Incharge
Training programme on Testing & Examination of Lifting Machinery, Tackles & Pressure Vessels.	Director Incharge
Training programme on Team Building for Safety, Health & Welfare	Director Incharge
Training programme on Chemical Safety for Safety Committee Members	Director Incharge
Training programme on Effective Supervision in Managing Safety, Health & Better Environment	Director Incharge

TRAINING PROGRAMMES
JANUARY TO DECEMBER 2002(TENTATIVE)
REGIONAL LABOUR INSTITUTE
S.C.F-46, SECTOR 19, PART-II MARKET, FARIDABAD 12102

Programme title	Contact person
Training programme on Effective Supervision in Managing Safety, Health & Better Environment	Deputy Director (Staff Trg./Prod)
Training programme on Team Building for Safety, Health and Welfare	Deputy Director (Staff Trg./Prod)
Training programme on Personal Growth and Group Dynamics	Deputy Director (Staff Trg./Prod)

इंडोशनेट

भारत सरकार का श्रम मंत्रालय व्यवसायिक सुरक्षा और स्वास्थ्य सूचना प्रणाली पर इंडोशनेट नामक राष्ट्रीय नेट वर्क का विकास कर रहा है। श्रम मंत्रालय का एक संबद्ध कार्यालय, कारखाना सलाह सेवा एवं श्रम संस्थान महानिदेशालय इस नेट वर्क प्रणाली के सफल कार्यान्वयन में सहायता देता है। इस नेट वर्क का उद्देश्य व्यवसायिक सुरक्षा और स्वास्थ्य संबंधी राष्ट्रीय जानकारी सुदृढ़ करना और लाभहानि रहित आधार पर इसका आदान-प्रदान करना है ताकि हमारे समग्र सूचना स्रोतों का परस्पर लाभ के लिए उपयोग हो सके। आपस में सूचना या जानकारी की यह सहभागिता केवल राष्ट्रीय स्तर तक ही सीमित नहीं होगी बल्कि इसमें अंतर्राष्ट्रीय स्रोत भी शामिल होंगे। इस जानकारी का आदान-प्रदान ई-मेल के साथ-साथ डाक/कुरियर सेवा द्वारा किया जाएगा। यदि औद्योगिक संगठनों, संस्थानों, उद्योग संघों, मज़दूर संघों, व्यवसायिक निकायों और गैरसरकारी संगठनों के पास व्यवसायिक सुरक्षा स्वास्थ्य संबंधी कोई जानकारी हो और वे राष्ट्रीय और अंतर्राष्ट्रीय स्तर पर उक्त जानकारी बाँटना चाहते हों तो कारखाना सलाह सेवा एवं श्रम संस्थान महानिदेशालय की ओर से इस नेट वर्क के सदस्य के रूप में भाग लेने के लिए उनका स्वागत है। इच्छुक इकाइयाँ संगठनात्मक रूपरेखा संबंधी प्रोफार्मा के लिए महानिदेशक, कारखाना सलाह सेवा एवं श्रम संस्थान महानिदेशालय, केंद्रीय श्रम संस्थान भवन, एन.एस.मंकीकर मार्ग, सायन, मुंबई-४०० ०२२ से संपर्क करें।

टिप्पणी : जिन इकाइयों ने हमारे पहले आग्रह के संदर्भ में संपर्क किया है और निर्धारित प्रोफार्मा में रूपरेखा भेज दी है, वे दुबारा आवेदन न करें।

नेशनल रेफरल डायग्नोस्टिक सेंटर

भौतिक, रासायनिक, जैविक तथा मनो-सामाजिक जैसे विभिन्न कारणों से कामगारों पर होने वाले विपरीत स्वास्थ्य प्रभावों की रोकथाम और नियंत्रण करने के लिए व्यावसायिक स्वास्थ्य विकार और व्यावसायिक रोगों की शीघ्र पहचान और उसका निदान एक प्रमुख पहलू है। व्यावसायिक रोगों का शीघ्र पता लगाने और निदान करने के लिए केंद्रीय श्रम संस्थान, मुंबई के औद्योगिक चिकित्सा प्रभाग के अधीन 'नेशनल रेफरल डायग्नोस्टिक सेंटर' कार्यरत है जो व्यावसायिक स्वास्थ्य समस्याओं / व्यावसायिक रोगों की रोकथाम / नियंत्रण के लिए आवश्यक उपायसुझाता है। प्रभावित कामगारों की चिकित्सीय जाँच के लिए यह निदान केंद्र पूर्णतया सज्जित है और यहाँ श्व.एस./धमनी संबंधी जाँच, श्रव्यता मापन, ई.सी.जी., टिट्मस दृष्टि जाँच, जैविक निगरानी आदि के लिए सुविधाएँ उपलब्ध हैं। कारखाना चिकित्सा अधिकारी, ई.एस.आई. डॉक्टर, कारखानों के चिकित्सा निरीक्षक सहित व्यावसायिक चिकित्सक तथा मेडिकल कॉलेज और अस्पतालों के प्रमाणित शल्य चिकित्सक और डॉक्टर व्यावसायिक रोगों के संदेहास्पद रोगी, निदान और परामर्श के लिए इस केंद्र में भेज सकते हैं। इस मामले में अधिक जानकारी के लिए महानिदेशक, कारखाना सलाह सेवा एवं श्रम संस्थान महानिदेशालय, केंद्रीय श्रम संस्थान भवन, एन.एस.मंकीकर मार्ग, सायन, मुंबई-४०० ०२२ से संपर्क करें।

INDOSHNET

Ministry of Labour, Government of India, is developing a National Network on Occupational Safety and Health information system known as INDOSHNET. Directorate General Factory Advice Service & Labour Institutes (DGFASLI), an attached office of the Ministry of Labour will act as a facilitator of the network system. The objective of the network is reinforcement and sharing of national occupational safety and health (OS &H) information on no-profit no-loss basis with a view to pooling our information resources for mutual benefit. The sharing of information will not only confine to the national level but also includes international sources. The communication of information will be through E-mail as well as postal/courier service. DGFASLI invites industrial organisations, institutions, industry associations, trade unions, professional bodies and non-governmental organisations having information on OS&H and willing to share the same with others at the national and international level to participate as members in the network. Interested agencies may please write for proforma of organisational profile to Director General, DGFASLI, Central Labour Institute Bldg., N.S. Mankikar Marg, Sion, Mumbai 400 022.

Note: Those who have responded to our earlier communication and sent organisation profile in the prescribed format need not write again.

NATIONAL REFERRAL DIAGNOSTIC CENTRE

Early detection and diagnosis of occupational health disorders and occupational diseases is one of the most important factors in the prevention and control of adverse health effects on workers due to various factors - physical, chemical, biological and psycho-social. The Industrial Medicine Division of Central Labour Institute, Mumbai runs a National Referral Diagnostic Centre (N.R.D.C.) for early detection and diagnosis of occupational diseases and recommends necessary measures for prevention/control of occupational health problems/occupational diseases. The diagnostic centre is well equipped for medical examination of the exposed workers and facilities are available for carrying out special investigation, e.g. Pulmonary function tests, Audiometry, ECG, Titmus vision test, Biological monitoring, etc. Medical professionals including Factory Medical Officers, ESI Doctors, Medical Inspectors of Factories and Certifying Surgeons, Doctors from Medical Colleges and Hospitals can refer suspected cases of occupational diseases to N.R.D.C. for diagnosis and advice. The communication should be addressed to the Director General, DGFASLI, Central Labour Institute Bldg., N.S. Mankikar Marg, Sion, Mumbai 400 022 for further details.

‘इंडोशून्यूज़’ एक त्रैमासिक समाचार पत्र है जो व्यावसायिक सुरक्षा और स्वास्थ्य के क्षेत्र में अनुसंधान, ध्यान और सर्वेक्षण के माध्यम से उपलब्ध जानकारी तथा तत्संबंधी विचार विनिमय में अत्यंत सहायक है । कारखाना सलाह सेवा एवं श्रम संस्थान उन व्यक्तियों, उद्योगों, औद्योगिक संगठनों, मज़दूर संघों और व्यावसायिक निकायों से लेख आमंत्रित करता है जिनके पास व्यावसायिक सुरक्षा एवं स्वास्थ्य संबंधी जानकारी है तथा जो उसे स्वेच्छा से दूसरों में बाँटना चाहते हैं ।

१. प्रकाशन के लिए पांडुलिपि की दो प्रतियां ‘डबल स्पेस’ में ए-४ आकार के कागज़ पर एक ओर टाइप किए गए लेख जो ३ या ४ पृष्ठ से अधिक न हों, मुख्य संपादक के पास भेजी जानी चाहिए । कोई फ़ोटो छापा नहीं जाएगा ।
२. प्रकाशन के लिए स्वीकृत पांडुलिपियों में प्रकाशन की दृष्टि से आवश्यक संपादकीय परिवर्तन रने का अधिकार प्रकाशक का है । प्रकाशक बिना कोई कारण बताए लेख का प्रकाशन नहीं भी कर सकता है ।
३. लेखक अपने लेख में दिए गए आँकड़े तथा संदर्भ स्वयं सुनिश्चित करने में सावधानी बरतें ।

INOSHNEWS is a quarterly newsletter that facilitates exchange of ideas and data developed through research, study and surveys in the areas of occupational safety and health. DGFASLI invites articles from individuals, industry, industrial associations, trade unions, professional bodies etc. having information on OS & H and willing to share the same with others at the national and international level.

- 1. Manuscripts for publication should be typed in double space within 3 to 4 A4 size sheets only on one side of the paper and sent in duplicate to the Editor-in-Chief. No photographs can be published.**
- 2. Once the manuscripts are accepted for publication, publisher reserves the right to make editorial changes as may be necessary to make the article suitable for publication; and publisher reserves the right not to proceed with publication for whatever reason.**
- 3. Authors should take care to ensure the accuracy of data and reference.**

भारत सरकार, श्रम मंत्रालय
कारखाना सलाह सेवा एवं श्रम संस्थान महानिदेशालय

कारखाना सलाह सेवा एवं श्रम संस्थान महानिदेशालय इंडीजीफासलीट भारत सरकार के श्रम मंत्रालय का एक संबद्ध कार्यालय है। कारखानों और गोदी में व्यावसायिक सुरक्षा और स्वास्थ्य संबंधी नीति बनाने के लिए तथा कार्य स्थलों पर कामगारों की सुरक्षा, स्वास्थ्य, दक्षता संबंधी मामलों पर राज्य सरकारों और कारखानों को परामर्श देने की दृष्टि से १९४५ में भारत सरकार के श्रम मंत्रालय के अधीन डीजीफासली की स्थापना की गई थी। यह महानिदेशालय देश के प्रमुख पत्तनों में सुरक्षा एवं स्वास्थ्य संबंधी नियम भी लागू कराता है।

कारखाना सलाह सेवा और श्रम मंत्रालय संस्थान महानिदेशालय इंडीजीफासलीट के निम्नलिखित अंग हैं:

- मुंबई स्थित मुख्यालय;
- मुंबई स्थित केंद्रीय श्रम संस्थान और
- कोलकाता, चेन्नई, फरीदाबाद और कानपुर स्थित क्षेत्रीय श्रम संस्थान।

मुंबई स्थित केंद्रीय श्रम संस्थान समाजार्थिक प्रयोगशाला के रूप में कार्य करता है और यह मानवीय पहलुओं से संबंधित औद्योगिक विकास के सभी पक्षों के वैज्ञानिक अध्ययन का एक राष्ट्रीय संस्थान है।

पिछले ३३ वर्षों में केंद्रीय श्रम संस्थान का केवल आकार की दृष्टि से ही नहीं बल्कि महत्ता की दृष्टि से भी विकास हुआ है और इसने राष्ट्रीय तथा अंतर्राष्ट्रीय स्तर पर मान्यता प्राप्त की है। एशिया और पैसिफिक क्षेत्र में व्यावसायिक सुरक्षा और स्वास्थ्य पर सर्वोत्कृष्ट प्रशिक्षण केंद्र के रूप में अंतर्राष्ट्रीय श्रम संगठन ने मान्यता प्रदान की है। यह सीआईएस इअंतर्राष्ट्रीय व्यावसायिक सुरक्षा और स्वास्थ्य सूचना केंद्र टके राष्ट्रीय केंद्र तथा राष्ट्रीय सुरक्षा एवं स्वास्थ्य जोखिम सतर्कता प्रणाली के केंद्र के रूप में कार्य करता है। राष्ट्रीय स्तर पर सरकार को अनुसंधान और प्रशिक्षण सुविधा उपलब्ध कराने और श्रम मंत्रालय के तकनीकी सहायक के रूप में कार्य करने के अलावा यह संस्थान अध्ययन, तकनीकी परामर्श, प्रशिक्षण और सूचना प्रसार के माध्यम से औद्योगिक पत्तन सेक्टर को गहन और बहु-आयामी सेवा उपलब्ध कराता है। इसके अधीन, व्यावसायिक विकारों की शीघ्र पहचान और उसके नियंत्रण और रोकथाम के लिए रेफरल डायग्नोस्टिक सेंटर कार्यरत है। सुरक्षा और स्वास्थ्य से संबंधित स्तरीय यू-मैटिक वीडियो फ़िल्मों के निर्माण के लिए परिष्कृत उपकरणों से सज्जित एक आधुनिक ऑडियो विजुअल स्टूडियो उपलब्ध है। केंद्रीय श्रम संस्थान के लघु रूप में क्षेत्रीय श्रम संस्थान हैं जो अपने संबद्ध क्षेत्रों की आवश्यकता पूरी करते हैं।

निरंतर बढ़ती माँग को देखते हुए, इस संगठन का आगे विकास हो रहा है। किसी विकासशील देश में विभिन्न और जटिल प्रकृति के उद्योगों की बड़ी संख्या को देखते हुए, कामगारों की सुरक्षा और स्वास्थ्य एक चुनौतीपूर्ण कार्य है। तकनीक, औद्योगिक समाज की साख और समर्पित कर्मचरियों से सज्जित यह संगठन भविष्य की चुनौतियों का सामना करने में सक्षम है। कार्य स्थल सुरक्षित बनाने के अपने लक्ष्य के लिए यह संगठन प्रतिबद्ध है।

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**GOVERNMENT OF INDIA, MINISTRY OF LABOUR
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, Government of India. DGFASLI organisation 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 past 33 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 CIS (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. It has a modern Audio Visual Studio fully equipped with sophisticated video production equipment to produce quality U-matic video films on Safety and Health. The Regional Labour Institutes are a scaled-down version of the Central Labour Institute and cater to the needs of their respective regions.

The organisation 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 organisation is well prepared to meet the challenges of tomorrow. It is committed to the goal of making the workplace safer.

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