



## SAFETY MANAGEMENT CONCEPTS AND REALITIES

S.B. MATHUR

### INTRODUCTION

Concepts on the subject of industrial safety and health are largely drawn from the theories and accident causation models given by the researchers like H.W Heinrich, Frank Bird and Dan Peterson. These theories give us unified concept and methods for improving our safety management systems. In this paper, an attempt is made to present my thoughts about such classic concepts and my knowledge of existing situations.

One of the principle of safety management says that 'Safety should be managed like any other company function. Management should direct the safety efforts by setting achievable goals and by planning, organizing and controlling to achieve them'. This means that safety of an industrial organization can be improved only if it is managed the same way as we manage other important functions such as production and product quality. For managing production we distribute responsibility to a hierarchy of officers, supervisors and workers. We also give them targets to be achieved within the time limits. Are we treating industrial safety the same way? Perhaps no. More often than not, safety responsibilities are entrusted only upon safety professional and they are expected to show results of improvement. This myopic approach needs to be corrected if we really want improvements in safety of our establishments.

The other part of the principle emphasises that the goals should be achievable. Do we really set achievable goals for safety? It is common to find large display boards at the entrance and other conspicuous places in the factory informing that the safety goal of the factory is zero accident. Sometimes a percentage reduction in accidents is also announced as safety goals. Conceptually, all this is ridiculous. When concept makes it clear that safety does not mean zero accident then why do we set such goals? In reality, our planning for safety needs to be corrected. We can very well imagine the result of incorrect planning. All efforts and expenditure, which are utilized in implementing delusive plans, are largely of no avail. Enterprises will have to think about it and set such goals, which are not only realistic, achievable but are also a true measure of the performance. Since, conceptually, safety represents degree of control of hazards, safety goals must be in terms of activities to be performed for better abidance of standards and control of hazards. It is important to appreciate that safety is not something additional, but like product quality, it is one of the parameters that is closely associated with each and every activity of the enterprise. Hence responsibility for achieving safety in the activities of the enterprise must lie with those who are responsible for the activity itself. Thus conceptually safety is a line responsibility but in reality it is a quite common to find situations where safety officers are made responsible for safety, which is incorrect and must be corrected.

Another principle of safety management says, "The key to effective line safety performance is management procedures that fix accountability". This principle is an extension of the previous one which said that safety

responsibilities should be shared by one and all, this principle says that the management should announce and implement a system to take into account the monitoring of the fulfilment of the given responsibilities and award credits and penalties accordingly. We surely follow this system in the field of production and product quality but we miserably fail to apply it when it comes to safety.

Yet another principle of safety management says that "The function of safety is to locate and define the operational errors that allow accidents to occur. This function can be carried out in two ways: (1) by asking why accident happen-searching for their root causes-and (2) by asking whether certain known effective controls are being utilized". The first part of this concept emphasises the need to identify hazards in hardware as well as software (work practices). It requires us to review the entire system in detail and to locate the likely modes of failure along with the chances of their occurrences. Are we really doing it? Have we ever conducted "Failure Modes and Effects Analysis" for our facility? Do we maintain the statistics of failure data for our critical equipment? The answers to such queries are mostly in negative. The second part of this principle suggests us to scrutinize our facilities so as to find why accidents were allowed to occur by the system? What went wrong? Could it not be corrected? Can we correct it now? We need to analyse our systems by looking into the areas of Safety Policy, clarity in distribution of responsibility to line supervisors, our methods of measuring the assigned safety responsibilities, quality of our accident investigations, adequacy and efficacy of our safety training and motivational activities etc. A critical and honest examination of above is bound to reveal some glaring realities. Some of typical real situations commonly found in factories include ignorance of even senior officers about the existence and content of their company's safety policy, supervisory level's ignorance of their role for safety, non-existent safety performance measuring system, poor accident investigation systems which in majority of cases, construe that the accidents happened accidentally or suddenly, perfunctory safety training for workers, no safety training for senior officers and very thin participation in motivational activities. The principle prompts us to check whether we are in possession of established authentic standards and safe operating procedures and are we actually following them? It is extremely important that the top boss of the organization supports the concept.

Conceptually safety is a line responsibility and a safety professional has got no direct responsibility for safety results. His responsibility for the job is to help line supervisors to achieve their goals in safety. Ideally, safety professionals require no authority over line people, but in real situations, several establishments give powers to safety professional for stopping the work and penalising contractors for not abiding safety rules. Such establishments proudly publicises this viewpoint and claim themselves to be the supporters of industrial safety. But, the fact is that such practices are quite contrary to the concept and thus creates hindrance for line people in







**NATIONAL SEMINAR ON BEST PRACTICES IN OCCUPATIONAL SAFETY AND HEALTH IN INDUSTRIES ON 09-01-2009 AT GUWAHATI**

The National Seminar on *Best Practices on Occupational Safety & Health in Industries* was organized by the Directorate General Factory Advice Service & Labour Institutes (DGFASLI), Ministry of Labour & Employment, Government of India in association with the Inspectorate of Factories, Government of Assam at the Assam Administrative Staff College, Guwahati, Assam, on January 09, 2009.

Shri S.Krishnan, IAS, Special Secretary, Ministry of Labour & Employment, Government of India, Shri S.K.Saxena, Director General, DGFASLI, Government of India and Shri K.K.Mittal, IAS, Commissioner & Secretary to the Government of Assam, Labour & Employment Department graced the seminar besides other dignitaries with their kind presence. Ninety eight dignitaries & delegates from seventy four organizations participated in the seminar.

The Chief Inspector of Factories, Assam welcomed the guests and the participants. The key note address was deliberated by Shri K.K.Mittal, IAS, Commissioner & Secretary to the Government of Assam, Labour & employment Department. The seminar was formally inaugurated by the Chief Guest, Shri S.Krishnan, IAS, Shri S.K.Saxena, D.G., DGFASLI, released the souvenir published on the occasion. In his inauguration speech, Shri S.Krishnan, IAS, explained on the needs of such type of seminars for promotion of better work environment. Shri S.K.Saxena, spoke on the best practices to be followed for augmentation of safety & health in industries.

The inaugural function was followed by two technical sessions. The first technical session was chaired by Shri S.K.Saxena, D.G., DGFASLI. Three technical papers were presented in the first technical sessions. Shri C.R.Deka, Chief Inspector of Factories, Assam, presented a paper on *Occupational Safety & Health in Factories - Scenario in the State of Assam*. His presentation touched all the major aspects of safety & health in the factories and the safety scenario in the factories of the State of Assam. Dr. A.K.Chakrabarti, Dy. Director General, DGFASLI, presented a paper on *Understanding Best Practice in Occupational Safety and Health* and Shri B. Banna presented a paper on *Best Practices in Occupational Safety & Health in AGCL*. The last deliberation of the first technical session was from Er. A.Kakoti, Group Engineer, Apeejay Tea Ltd., a major tea company of the country on *Various Hazards and Remedies associated with Tea Factories*.

The second technical session was chaired by Dr. A.K.Chakrabarti, Dy.Director General, DGFASLI. Two technical papers were presented in the second technical session. The first presentation was from Shri Jayanta Dutta, Senior Executive, Hindustan Unilever Ltd., on *Safety and Health Practices in Industries*. The second presentation was by Shri U.K. Das, Director, Regional Labour Institute, Kolkata, on *Helping Employees to Learn About Safety and Health- One of the Best Practices for*

*Loss Control in Industries*. Shri Dutta, a representative from the Workers' Union of the Cachar Paper Mill, HPC, delivered a talk on *Safety and Health Scenario of the Cachar Paper Mill*. The function was concluded by Shri S. K. Saxena, Director General, DGFASLI, by appreciating all the delegates for their efforts towards spreading safety message.

**SEMINAR ON INDUSTRIAL SAFETY & HEALTH CULTURE - IMPACT ON WORK ENVIRONMENT AT INDIAN CHAMBER OF COMMERCE (ICC), KOLKATA**

The seminar on *Industrial Safety & Health Culture - Impact on Work Environment* was organized by ICC Kolkata in Collaboration with Directorate General Factory Advice Services & Labour Institutes, DGFASLI, Ministry of Labour & Employment, Govt. of India and Directorate of Factories, Government of West Bengal, on 30<sup>th</sup> January, 2009 at ICC, Kolkata.

Shri Trilochan Singh, IAS, Principal Secretary, Labour & Employment, Govt. of West Bengal, Dr. A.K.Chakrabarti, Deputy Director General, DGFASLI, Mumbai, Shri R.P.Chakraborty, Chief Inspector of Factories, Government of West Bengal, Shri Rajeev Singh, Secretary General, ICC, Shri Samar Chakraborty, Secretary General, INTUC, Advisory Member of National Productivity & Safety Council, Shri N.K.Chatterjee, Advisor (HR), Secretary General, ICC, Kolkata graced the seminar besides 95 dignitaries & delegates from 65 organization.

Shri Rajeev Singh, Secretary General, ICC welcomed the dignitaries and the participants and explained the programme perspective.

The seminar was inaugurated by the Chief Guest, Shri Trilochan Singh, IAS, Principal Secretary, Labour & Employment, Govt. of West Bengal. In his inaugural speech, Shri Singh explained about the safety & health scenario in industries of the West Bengal. He briefed about the various ongoing and future programmes for improvement of industries and rehabilitation of child labour in West Bengal Government.



*Dr.A.K.Chakrabarti, Dy.Director General, DGFASLI, Mumbai presenting a paper in the seminar.*

The key note address was deliberated by Dr. A.K.Chakrabarti, Deputy Director General, DGFASLI, Mumbai. In his address he expressed the mission of

DGFASLI to give credence to the process of partnership with the OS&H stakeholders like ICC organizing this seminar in promoting OS&H in factories and ports. He also briefed about various activities launched by DGFASLI in the Year of Industrial Safety & Health 2008-2009. The inaugural function was followed by two technical sessions. The 1st Technical Session was chaired by Shri R.P.Chakraborty, Chief Inspector of Factories, Government of West Bengal. Shri Samar Chakraborty, Secretary General, INTUC, Advisory Member of National Productivity & Safety Council presented a paper on *Enhancement of Employee Competence, Awareness and Involvement*. The second paper was presented by Shri Swapan Kumar Mallick, Senior Manager, Safety & Environment Project of Indian Oil Corporation Ltd on *Safety and Health Culture in Industries*. Dr.A.K.Chakrabarti, Dy.Director General, DGFASLI presented a paper on *Development of Behavioral Safety Culture*. His information and lively presentation included suggestions for improvement of behavioral based safety and health culture.

The second technical session was chaired by Dr.A.K.Chakrabarti, Dy.Director General, DGFASLI. Shri A.Seal, Senior Manager Safety & Environment, Tata Chemicals Ltd., presented a paper on *Hazard Identification and Control Measures for Sustainable Safety and Health Culture*. Shri U.K.Das, Director, Regional Labour Institute. Kolkata presented a paper on *Policy and Planning for Formation of OS&H Management System in Industries*. Dr. A.K.Das, Deputy Chief Inspector of Factories, Government of West Bengal presented paper on *The Necessity of Work Environment Monitoring in Industries* The seminar was concluded with vote of thanks by Shri N.K.Chatterjee, Advisor (H.R.), Secretary General, ICC, Kolkata.

### INVITING ARTICLE FOR INDOSHNEWS

INDOSHNEWS 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.

### DGFASLI AT A GLANCE

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

**Vision of DGFASLI:** DGFASLI envisions emerging as an organization of excellence in creating knowledge, formulating policies, standards and practices to ensure safe and healthy workplaces for all in factories and ports.

**Mission of DGFASLI:** The mission of DGFASLI is to render its expertise in occupational safety and health for evolving safe and healthy workplaces in factories and ports through a process of partnership, guidance, regulatory activities in specific sector and information sharing.

DGFASLI organization comprises of its Headquarters situated in Mumbai, Central Labour Institute (CLI) in Mumbai, four Regional Labour Institutes (RLI) in Chennai, Faridabad, Kanpur & Kolkata and eleven Inspectorate of Dock Safety (IDS) offices located in Mumbai, Jawaharlal Nehru Port, Kandla, Mormugao, New Mangalore, Chennai, Tuticorin, Cochin, Visakhapatnam, Kolkata, and Paradip.

DGFASLI organization consists of a multidisciplinary team of around 129 officers (engineers, physicians, industrial hygienists, physiologists, ergonomists, industrial psychologists, commercial artists etc.) and 81 technical staff members.

Various specialty divisions/cells under DGFASLI office and Central Labour Institutes in Mumbai include a) Factory Advice Service, b) Dock Safety, c) Construction Safety, d) Awards, e) Statistics, f) Industrial Safety, g) Industrial Hygiene, h) Industrial Medicine, i) Industrial Physiology & Ergonomics, j) Staff Training, Productivity & Small Scale, k) Industrial Psychology, l) Major Hazards Chemical Safety, m) Management Information Services; n) Environmental Engineering and o) Communication Division. The Regional Labour Institutes are a scaled-down version of the Central Labour Institute and cater to the needs of their respective regions through its specialty divisions like Industrial Safety, Industrial Hygiene and Medical. 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.

Visit us at: [www.dgfasli.nic.in](http://www.dgfasli.nic.in)

**CENTRAL LABOUR INSTITUTE: MUMBAI**



During the quarter Central Labour Institute carried out several studies, workshops, training programme etc. which are described here.

**Studies**

*Assessment of Airborne Chemical contaminants in the Work Environment of a Coating Plant in Karnataka* (Mandre, M.K., Industrial Hygiene Division, Central Labour Institute, Mumbai)

*Assessment of Airborne Chemical contaminants in the Work Environment of a Dyes Plant in Karnataka* (Mandre, M.K., Industrial Hygiene Division, Central Labour Institute, Mumbai)

*Assessment of Airborne Chemical contaminants in the Work Environment of a Chemical Factory in Maharashtra* (Mandre, M.K., Industrial Hygiene Division, Central Labour Institute, Mumbai)

*Evaluation of Heat Stress and Ventilation of an Agricultural Implements Manufacturing Unit in Maharashtra* (Ghosh, P.C., Industrial Physiology and Ergonomics Division, Central Labour Institute, Mumbai)

*Evaluation of Heat Stress and Heat Disorder of a High Power Printer Manufacturing Unit in Bihar* (Ghosh, P.C., Industrial Physiology and Ergonomics Division, Central Labour Institute, Mumbai)

*Safety Audit in a Hydrogen Plant and Air Separation Plant in Tamilnadu* (Elangovan, R.K., and Sushil Kumar, Safety Division, Central Labour Institute, Mumbai)

*Safety Audit in a Bar, Toilet Soap and Powder Plant in Maharashtra* (Elangovan, R.K., Safety Division, Central Labour Institute, Mumbai)

*Noise and Ventilation Study of a Thermal Power Plant in Maharashtra* (Subhash Chandra, Environmental Engineering Division, Central Labour Institute, Mumbai)

**Training Programme**

Industrial Hygiene Division conducted a three-day training programme on *Recognition and Evaluation of Chemical Hazards in Engineering Industries* from February 11-13, 2009. The training programme was attended by six participants from three organizations.

Industrial Physiology & Ergonomics Division conducted a one day training programme on *Industrial Physiology and Ergonomics* on January 27, 2009. The programme was attended by thirty five students of Post Graduate Diploma from an institution.

Industrial Physiology and Ergonomics Division conducted one day training programme on *Industrial Ergonomics - Its Application in Industry* on February 25, 2009. The programme was attended by twenty six students of Post Graduate Diploma in Occupational Therapy from an engineering college..

Industrial Physiology and Ergonomics Division conducted one day training programme on *Industrial Ergonomics - Its Relevance in Industry* on March 26, 2009. The programme was attended by thirty students of Post Graduate Diploma from an institution.

Industrial Physiology and Ergonomics Division conducted a three-day training programme on *Ergonomics Audit - A Tool for Ensuring Safety, Health and Productivity at Work* from January 28-30, 2009. The training programme was attended by nine participants from one organization.

Industrial Physiology and Ergonomics Division conducted a three-day training programme on *Industrial Fitness to Improve Safety, Health and Productivity at Work* from February 24-26, 2009. The training programme was attended by seventeen participants from three organizations.

Environmental Engineering Division conducted a three-day training programme on *Impact of Environmental Pollutants and Their Control at Workplace* from February 10-12, 2009. The programme was attended by sixteen participants from ten organisations.

Industrial Psychology Division conducted a three-day training programme on *Participative Skills for Safety Committee Members* from February 18-20, 2009. The programme was attended by nine participants from three organisations.

**Workshops/Seminars/Conference**

Major Hazard & Chemical Safety Division conducted a national workshop on *Role of Insurance Sector in Promoting Safety and Health in Industries* on February 23, 2009. The workshop was attended by seventy seven participants from forty six organisations.

Major Hazard & Chemical Safety Division conducted a workshop on *Dispersion Modelling and Impact Assessment of Major Toxic & Flammable Releases* from February 04-06, 2009. The workshop was attended by two participants from one organisation.

**Paper/Presentation/Talks**

Shri P.C. Ghosh, Director (Physiology and Ergonomics) presented a paper on *Application of Physiology in Industry* in the 96th Session of Indian Science Congress held under the auspicious of North East Hill University at Shillong on January 04, 2009.

Shri P.C. Ghosh, Director (Physiology and Ergonomics) presented a paper on *Application of Ergonomics in Industry* in the National Seminar on *Occupational Safety and Health, Social relevance in the Global perspective* organized by CIF, Andhra Pradesh on January 21-22, 2009.



Shri S.S. Gautam, Director (Industrial Hygiene), presented papers on *Safety Initiatives and Planning at Ports, Storage, Handling and Transportation of Ingoing/Outgoing Hazardous Goods and Chemicals* at a workshop organized by National Disaster Management & FICCI in New Delhi on February 13, 2009.

Dr. R. K. Elangovan, Director (Safety) presented a paper on *Statutory Initiatives for Safety Management* in the Seminar on *Safety and Security Management* organized by All India Manufacturers organization in Chennai on January 31, 2009.

Dr. R.K. Elangovan, Director (Safety) presented a paper on *Evolution of Insurance Practices for Risk Management in Industries – Global Scenario* in the workshop on *Role of Insurance Sector in Promoting OSH in Industries* organized by DGFASLI at Central Labour Institute, Mumbai on February 23, 2009.

Shri D.R. Krishna, Dy. Director (Safety) has delivered a talk on *Emerging Trend - OSH Consideration* in a *Safety Day Celebration* at Naval Dockyard, Mumbai on March 03, 2009.

Shri D.R. Krishna, Dy. Director (Safety) has delivered a talk on *Accident Prevention* at GMB training Centre, Alang, Bhavnagar in the pretext of *Industrial Safety & Health – 2009* on March 13, 2009.

#### **REGIONAL LABOUR INSTITUTE, KANPUR**



During the quarter from January 2009 to March 2009, Regional Labour Institute carried out several studies, workshops, training programmes etc. which are described here.

##### **Studies**

*Safety Audit at Pulp & Paper Industry, Himachal Pradesh* (Brij Mohan, Industrial Hygiene Division and Dwivedi, S.K., Safety Division, Regional Labour Institute, Kanpur)

##### **Training Programme**

The Industrial Hygiene Division conducted a three days training programme on *Mineral Dust & Associated Health Hazard in Industry* from February 24-26, 2009. Eighteen Participants from twelve organisations attended the programme.

The Industrial Hygiene Division conducted a five days training programme on *Management of Industrial, health & Environment Industry* from March 16-20, 2009. Twenty participants from nine organisations attended the programme.

##### **Paper/Presentations/Talks**

Dr. Brij Mohan, Deputy Director (Industrial Hygiene) delivered a talk on *Industrial Hygiene & Occupational Health in Hydrocarbon Industry* in a Workshop on *Safety, Health & Environment in Hydrocarbon Industry* organized by Petroleum Federation of India, Loviraj Memorial Trust and Deptt of Chemical Engg. at IIT, Roorkee on January 22, 2009.

Shri S.B. Mathur, Director (Safety) delivered a talk on *Introduction to OSH system and the Factories Act 1948* in a Workshop on *Safety, Health & Environment in Hydrocarbon Industry* organized by Petroleum Federation of India, Loviraj Memorial Trust and Deptt. of Chemical Engg. at IIT, Roorkee on January 22, 2009.

#### **REGIONAL LABOUR INSTITUTE: CHENNAI**



During the quarter from January 2009 to March 2009, Regional Labour Institute carried out several studies, workshops, training programmes etc. which are described here.

##### **Training Programmes**

Industrial Hygiene Division conducted a three days training programme on *Management of Hazardous Substances* from February 17-20, 2009. This program was attended by twenty five participants from thirteen different organizations.

##### **Workshops/Seminars/Conference**

The Institute organized one day seminar on *Maintenance & Testing of Lifting Tackles* on March 14, 2009 for Safety Professionals in industries. One hundred and twenty participants from one hundred and three organizations attended the seminar. The seminar was organized in association with M/s Madras Hard Tools Private Ltd, Chennai.

The Institute organised a two days seminar on *Safety Legislations – Role & Functions of Safety Committee in Chemical Industry* on March 30-31, 2009. Fifty five participants attended the seminar from forty different organizations. The seminar was organized in association with Indian Chemical Council, Chennai.

Safety Division organised a half day seminar on January 30, 2009 on *Energy Efficiency*. One hundred and twenty three students from four different institutions attended the seminar.

##### **Paper Presentation/Talks**

Shri A. Sreeramulu, Deputy Director (Industrial Hygiene), presented a paper on *Industrial Hygiene* in a national seminar on OS&H organized by Director of Factories,

Andhra Pradesh and Employers federation of Southern India, Andhra Pradesh Branch and NSC, Andhra Pradesh Chapter on January 21, 2009 at Hyderabad.

Shri C.M. Nigli, Deputy Director (Safety), presented one paper on *Environmental Impact on the Quality of Life* in a national seminar on OS&H organized by Director of Factories, Andhra Pradesh and Employers federation of Southern India, Andhra Pradesh Branch and NSC, Andhra Pradesh Chapter on January 21, 2009 at Hyderabad.

Shri C.M. Nigli, Deputy Director (Safety), presented a paper on *Maintenance & Testing of Lifting Tackles* on March 14, 2009 for safety professionals in industries to enhance their competency during inspection, maintenance, testing and examination of lifting tackles. This program was organized by RLI in association with Madras Hard Tools Pvt. Ltd., Chennai.

**REGIONAL LABOUR INSTITUTE, KOLKATA**



During the quarter from January 2009 to March 2009, Regional Labour Institute carried out several studies, workshops, training programmes etc. which are described here.

**Studies**

*Occupational Safety & Health Audit at Textile Industry in West Bengal* (by Das, U.K., Chattopadhyay, H. and Sengupta, D.K., Regional Labour Institute, Kolkata)

*Safety Audit at a Power Plant Project in West Bengal* (by Das, U.K., Halder, S.K., Chattopadhyay, H., Banerjee, S.N. and Sengupta, D.K., Regional Labour Institute, Kolkata)

**Training programmes**

Safety Division conducted training programme on *Safety Health & Environment at Workplace* from January 19-23, 2009. Twenty one Management and Executive level participants from eight different industries attended the programme.

Industrial Medicine Division conducted training programme on *Refresher Course for Plant Medical Officers* from February 02-06, 2009. Ten Medical Officers from eight organisations attended the programme.

Industrial Hygiene Division conducted specialized training programme on *Industrial Hygiene for competence Building for Chemist/Sr. Laboratory Assistant of CIF*, Tripura and CIF, Orissa from February 09-20, 2009. Two participants attended the programme.

Safety Division conducted one day in-plant training programme on *Occupational Safety & Health programme*

at Numaligarh refinery in Assam in four groups for four days from February 10-13, 2009. One hundred and sixteen participants of Management and Executive level, attended the programme

Safety Division conducted training programme for *Post Diploma in Industrial Safety Course* for the session 2008-09 of Asian Workers Development Institute, Rourkela, Orissa from February 19-20, 2009, February 23-24, 2009 and February 26-27, 2009 respectively. Ninety two participants attended the programme.

**Workshops/Seminars/Conference**

The institute organized a one day seminar on *Safety in Construction, Fire Fighting, Material Handling and Steel Making Process* at RLI, Kolkata on March 25, 2009 for DISE students.

**Paper/Presentations/Talks**

Shri U.K.Das, Director (Safety) presented a paper on *Policy and Planning for Formation of OSH Management System in Industries* in the seminar on *Industrial Safety & Health Culture - Impact on Work Environment* conducted by ICC Kolkata in Collaboration with DGFASLI, Mumbai at ICC, Kolkata on January 30, 2009.

Shri H. Chattopadhyay, Dy. Director (Safety) delivered a talk on *Safety at Workplace Workshop on Safety, Health & Environment* on the occasion of National Safety Day at Dabur India Ltd., Narendrapur, Kolkata on March 03, 2009.

Shri U.K.Das, Director (Safety) delivered talk on *Safety Awareness* on the occasion of National Safety Day at Hindustan Uniliver Ltd. Kolkata on March 04, 2009.

Shri U.K.Das, Director (Safety) delivered talk on *Accident Investigation & Prevention* on the occasion of National Safety Day & Week at Haldia Dock Complex, Haldia on March 06, 2009.

Shri D. Bandopadhyay, Dy. Director (Safety) presented a paper on *Safety in Material Handling* in the seminar on *Electrical Safety & Safety in Material Handling* in celebration of the Year of Industrial Safety & Health, 2008 at Dishergarh Power Station, Asansol on March 20, 2009.

**FOR INFORMATION**

Worker's compensation laws vary widely from state to state but have key objectives in common.

In his *Industrial Safety: Management and Technology*, David Colling contended that – "Workmen's compensation laws have done more to promote safety than all other measures collectively, because employers found it more cost-effective to concentrate on safety than to compensate employees for injury or loss of life."

**Assessment of Airborne Chemical contaminants in the Work Environment of Coating Plant in Karnataka (Mandre, M.K. Industrial Hygiene Division, Central Labour Institute, Mumbai.)**

The study was conducted in a factory, producing of Automotive Coatings. The objective of the study was to evaluate the airborne levels of Solvents used in the automotive printing and Coating operations of Automobile Industries. Airborne level of Xylene, Isobutanol, Butyl Acetate Toluene, Butyl Acrylate and Styrene were monitored at various locations. The airborne concentration and Time Weighted Average exposure at all the locations were found within the Permissible Limit of Exposure. The recommendations were given to ensure the working of exhaust system at the sand mill section and pot cleaning area. Other recommendations such as, to improve the working conditions and use of appropriate personal protective equipment were also suggested.

**Assessment of Airborne Chemical contaminants in the Work Environment of Dyes Plant in Karnataka (Mandre, M.K. Industrial Hygiene Division, Central Labour Institute, Mumbai)**

The study was conducted in a Dyes and Dispersion plants engaged in the production of Powder Dyes and Liquid Dyes and Polymerized Chemicals. The objective of the study was to carry out the evaluation of airborne contaminants like of Styrene, Butyl Acrylate, Formaldehyde, Formic Acid Ammonia, Hydrochloric Acid and Particulate Matter. The airborne concentrations of all the contaminants were found well below permissible limit of exposure. Some recommendations such as enclosing the man holes used for charging the material in the reactor vessels and to improve working conditions / house-keeping and maintenance of the exhaust system were suggested.

**Assessment of Airborne Chemical contaminants in the Work Environment of Chemical Factory in Maharashtra (Mandre, M.K. Industrial Hygiene Division, Central Labour Institute, Mumbai)**

The study was conducted in Chemical Plant engaged in the production of Styropor Leather Auxiliaries and Synthetic Tanning Agents. The objective of the study was to carry out the evaluation of airborne contaminants like of Butyl Acrylate, Styrene, Formaldehyde, Naphthalene, Phenol, Sulphuric Acid. The airborne concentrations of all the contaminants were found well below permissible limit of exposure. Other recommendations such as, to improve the working conditions and use of appropriate personal protective equipment were also suggested.

**Evaluation of Heat Stress and Ventilation of an Agricultural Implements Manufacturing Unit in Maharashtra (Ghosh P.C, Industrial Physiology and Ergonomic Division, Central Labour Institute, Mumbai)**

The heat stress and ventilation study was carried out in an agricultural implements manufacturing unit to ascertain the prevailing level of (a) air velocity .(b) heat stress in term of physiological indices of heat stress and (c) physiological discomfort among the operators in various sections of the plant. The study revealed the levels of

heat stress in various sections varied from moderate to high. The level of air velocity in term of ventilation was found to be higher in some section than the prescribed limit. The physiological observation did not show accumulation of heat among the operators. Accordingly, appropriate suggestions for the improvement were given for further improvement.

**Evaluation of Heat Stress and Heat Disorder of a Printing Machinery Manufacturing Industry in Bihar (Ghosh P.C, Industrial Physiology and Ergonomic Division, Central Labour Institute, Mumbai)**

The heat stress and heat disorder study was carried out in a printing machinery manufacturing industry to ascertain the heat stress in term of physiological indices of heat stress and heat disorder among the operators in various work places. The study evaluated the level of heat stress in various sections; and found those well within prescribed limit as the entire plant was under control temperature through a mechanical device. The physiological variable did not show accumulation of heat among the workers. Appropriate suggestion for improvement was given.

**Safety Audit in a Hydrogen Plant and Air Separation Plant in Tamilnadu (Elangovan, R.K., and Sushil Kumar, Safety Division, Central Labour Institute, Mumbai)**

Safety Audit in a hydrogen plant and air separation plant in Tamilnadu was conducted. The audit was conducted as per the BIS standard codes of practices on Occupational Safety and Health (OSH) audit systems (BIS-14489: 1998). The Audit covered various management and technical elements of occupational safety and health system in the industry. The recommendations included creation of standard operating procedures, safety training to the workers, effective emergency planning and mock drills.

**Safety Audit in a Bar, Toilet Soap and Powder Plant in Maharashtra (Elangovan, R.K., Safety Division, Central Labour Institute, Mumbai)**

Safety Audit for a Bar soap, Toilet Soap and Powder plant was conducted in Maharashtra. The audit was conducted as per the BIS standard codes of practices on Occupational Safety and Health (OSH) audit systems (BIS-14489: 1998). The Audit covered various management and technical elements of occupational safety and health system in the industry. All the occupational safety and health elements of the management systems were checked during the audit. The major recommendations were occupational health surveillance, mechanical integrity assessment, structural strength validation and testing and other certification procedures. The need for effective mock drills were highlighted in the audit report.

**Noise and Ventilation Study of a Thermal Power Plant in Maharashtra (Subhash Chandra, Environmental Engineering Division, Central Labour Institute, Mumbai)**

The noise and ventilation studies were carried out in a Thermal Power Plant in Maharashtra to measure the



## TRAINING CALENDER FOR THE YEAR 2009: DGFASLI

**CENTRAL LABOUR INSTITUTE, N.S.MANKIKER MARG, SION, MUMBAI – 400022**

**Telephone: 91-22-24092203, Fax: 91-22-24071986/ 24033995/24023193/24092269**

**Visit us at: [www.dgfasli.nic.in](http://www.dgfasli.nic.in), E-mail address: [cli@dgfasli.nic.in](mailto:cli@dgfasli.nic.in)**

S.No.	Title of the Programme	Period	Coordinating Division
1.	Advanced Diploma in Industrial Safety (ADIS) 2008-09	January 05–April 10	SAFETY
2.	Ergonomics – A Tool for Ensuring Safety, Health & Productivity at Work	January 28–30	PHY
3.	Workshop on Dispersion Modeling and Impact Assessment Of Major Toxic & Flammable Release	February 04-06	MH&CS
4.	Impact of Environmental Pollutants & their Control at Workplace	February 10-12	EED
5.	Recognition & Evaluation of Chemical Hazards in Engineering Industries	February 11-13	IH/NRTL
6.	Heat Stress & Ventilation Vis-A-Vis Safety, Health & Productivity at Work	February 16-18	PHY/ERG
7.	Personal Growth & Group Dynamics	February 17-19	ST/PROD
8.	Effective Participative Skills for Safety Committee Members	February 18-20	IND. PSY
9.	Industrial Fitness to Improve Safety, Health & Productivity at Work	February 24-26	PHY/ERG
10.	Training Programme on Safety in Collaboration with NSC - MC	February 25-27	SAFETY
11.	Workshop On Safety in Shipyards in Collaboration with NSC - MC	March 02-06	SAFETY
12.	Associate Fellow of Industrial Health (AFIH)	April 01-June 30	IND. MED.
13.	Workshop on Hazards & Operability Study	April 01-03	MH&CS
14.	Workshop on Industrial Noise	April 15-17	EED
15.	Effective Supervision for Results	April 20-22	ST/PROD
16.	On the Job Counseling Skills	April 22-24	IND. PSY
17.	Workshop on Occupational Safety, Health & Environment for Safety Professionals – Innovation & Challenges	April 22-24	SAFETY
18.	Selection & Quality Assurance for Effective Use of Personal Protective Equipment	April 26-28	IH/NRTL
19.	Training Programme on Ind. Safety (NSC Members Only) - MC	May 13-15	SAFETY
20.	Workshop on Safety Handling of Chemicals for Safety Committee Members	May 27-29	MH&CS
21.	Motivation for Safety, Health & Productivity	May 27-29	IND. PSY.
22.	Workshop on Industrial Ventilation	June 16-18	EED
23.	Training Methodology for Trainers	June 23-25	ST/PROD
24.	Refresher Course for Safety Officers	June 24-26	SAFETY
25.	Advanced Diploma in Industrial Safety (ADIS) 2009-10	July 1–October 30	SAFETY
26.	Training Programme on Ind. Safety (NSC members only) - MC	July 15 – 17	SAFETY
27.	Team - building for Health, Safety & Welfare at Work	July 21-23	ST/PROD
28.	Safety, Health & Environment Management in Process Industries	July 22-24	MH&CS
29.	One Month Specialized Certificate Course in Safety and Health for Supervisory Personnel Engaged in Hazardous Process Industries	August 24-September 23	ST/PROD
30.	Making Safety Committee more Effective	August 26-28	IND. PSY
31.	Workshop on Safety Audit	August 26-28	SAFETY
32.	Advanced Training Programme on Occupational Health & Environmental Medicine	September 07-11	IMD. MED.
33.	Selection & Quality Assurance for Effective Use of PPE	September 15-17	IH/NRTL
34.	Basic Course for Inspectors of Factories	September 07-25	SAFETY
35.	Training Workshop on Hazard & Operability (HAZOP) Studies	September 23-25	MH&CS
36.	Workshop on Environmental Audit	September 23-25	EED
37.	Training Programme on Industrial Safety (for NSC Members Only) - MC	October 07-09	SAFETY
38.	Monitoring of Work Environment in Industries	November 09-11	IH/NRTL
39.	Refresher Course for Senior Inspectors of Factories	November 16-27	SAFETY
40.	Productivity & Quality through Effective Employee Participation	November 17-19	ST/PROD
41.	Storage, Handling & Management of Hazardous Substances in Process Industries	November 18-20	MH&CS
42.	Handling Problem Behaviour of Employees	November 18-20	IND. PSY.

**TRAINING CALENDER FOR THE YEAR 2009: DGFASLI**

43.	Impact of Environmental Pollutants & their Control at Work Place	November 24-26	EED
44.	Industrial Hygiene Techniques	December 07-09	IH
45.	Training Workshop on Occupational Health Practice for Nurses, Medical/Health Assistants	December 07-11	IND. MED.
46.	Testing & Examination of Lifting Tackles & Pressure Vessels	December 09-11	SAFETY
47.	OSH-MS	December 15-17	ST/PROD
48.	Effective Leadership for Safety, Health & Productivity	December 16-18	IND. PSY.
49.	Training Programme on Industrial Safety (for NSC Members only) - MC	December 16-18	SAFETY

Abbreviations: I.H. – Industrial Hygiene, PHY/ERG – Physiology/Ergonomics, IND.PSY. – Industrial Psychology, IND. MED. – Industrial Medicine, EED – Environmental Engineering Division, MH&CS – Major Hazards & Chemical Safety, NRTL – Non-respiratory Testing Laboratory, ST/PROD – Staff Training/Productivity.

- 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, SARVODAYA NAGAR, KANPUR- 208 005**

Telephone: 91-512-2218691/92, 2218745, Fax: 91-512-2215112

E-mail Address: [rli\\_Kanpur@vsnl.net](mailto:rli_Kanpur@vsnl.net), [rlikanpur@hotmail.com](mailto:rlikanpur@hotmail.com)

S.No.	Title of the Programme	Period	Coordinating Division
1.	Workshop on Safety Engineering & Management	January 28-30	SAFETY
2.	Workshop on Work Environment – Its Evaluation and Control	February 10-12	IH
3.	Training Programme on Mineral Dust & Associated Health Hazards in Industries	February 24-26	IH
4.	Package Training Programme for Plant Faculties on 'Industrial Safety and Health'	March 2-6	SAFETY
5.	Management of Industrial Safety, Health & Environment in Industries	March 16-20	SAFETY
6.	Training Programme on Prevention & Control of Fire in Industry	April 13-15	SAFETY
7.	Training Programme on Process Safety for Safety Committee Members	July 7-10	IH
8.	Post Diploma Course on Industrial Safety 2009-10	July 2009-March 2010	SAFETY
9.	Training Programme on Effective Supervision for Safety, Health & Environment at Workplace	August 5-7	SAFETY
10.	Training Programme on Testing & Examination of Lifting Machines & Pressure Vessels	August 17-21	SAFETY
11.	Training Programme on Safety & The Law	September 2-4	SAFETY
12.	Package Training Programme for Plant Faculties on 'Industrial Safety and Health'	September 14-18	SAFETY
13.	Workshop On Monitoring of Work Environment and its Execution	October 6-8	IH
14.	Seminar On 'Emerging Issues on Process Safety Management'	October 30	IH
15.	One Month Specialized Certificate Course in Safety and Health for Supervisory Personnel Engaged in Hazardous Process Industries	November 3 to December 1	SAFETY
16.	Workshop on Safety Audit	December 8-10	SAFETY
17.	Training Programme on Process Safety for Inspector of Factories	December 14-18	IH

**REGIONAL LABOUR INSTITUTE, TTTI P.O. THARAMANI, ADYAR, CHENNAI-600 113**

Telephone: 91-44-22350737, 25220888,

Fax: 91-44-22355690 E-mail Address: [rlic@vsnl.net](mailto:rlic@vsnl.net)

S.No.	Title of the Programme	Period	Coordinating Division
1.	Seminary for Safety Officers on Lifting Tackles	February 28	SAFETY
2.	Training Programme on Management of Hazardous Substances	February 18-20	IH
3.	Safety in Chemical Industries	March 18-20	SAFETY
4.	Workshop on Monitoring Work Environment	July 7-10	IH

**TRAINING CALENDER FOR THE YEAR 2009: DGFASLI**

5.	Diploma Course in Industrial Safety (DCIS)	July 2009-June 2010	SAFETY
6.	Training Programme on Safety Audit	August 19-21	SAFETY
7.	Training programme on Fire & Explosion in Major Accident Hazard Industries / Chemical Industries	September 23-25	SAFETY
8.	Training on Lifting Tackles	October 29-30	SAFETY
9.	Training Programme on Management of Hazardous Substances	December 15-18	IH

**REGIONAL LABOUR INSTITUTE, LAKE TOWN, KOLKATA-700 089**

Telephone: 91-033-25343254, 25342732 Fax: 91-033-25348182

E-mail Address: [regi\\_876109@bsnl.in](mailto:regi_876109@bsnl.in)

S.No.	Title of the Programme	Period	Coordinating Division
1.	Safety Health & Environment at Workplace	January 19-23	SAFETY
2.	Refresher Course on Occupational Health for Plant Medical Officers	February 2-6	IND. MED.
3.	National Workshop on Occupational Health with Special Reference to Silicosis	February 24-27	IND. MED.
4.	Management of Physical Hazards and Waste Management in Workplace	March 16-20	IH
5.	Handling Storage and Transportation of Hazardous Chemicals	March 23-27	SAFETY
6.	Associate Fellow of Industrial Health (AFIH)	April 1 – June 30	IND. MED.
7.	Chemical Safety for Worker Members of Safety Committee	April 21-23	SAFETY
8.	Safety & Health Awareness Programme for Workers	May 6-8	SAFETY
9.	Safety in Construction Industry	May 11-15	SAFETY
10.	Techniques of Hazards Identification & Assessment	June 23-25	SAFETY
11.	Diploma Course in Industrial Safety (DCIS)	July 2009- June 2010	SAFETY
12.	Delivering the Package Programme on 'Industrial Safety & Health' (A Development Programme for Plant Faculties on Industrial Safety & Health)	July 20-24	SAFETY
13.	Environmental Hazards & Their Control in Industries	August 17-21	IH
14.	Training Programme on Chemical Safety	September 7-11	SAFETY
15.	Safety in Construction Industries	October 26-30	SAFETY
16.	Workers Development Programme	November 10-11	IND. MED.
17.	One Month Specialized Certificate Course in Safety and Health for Supervisory Personnel Engaged in Hazardous Process Industries	November 17-16	SAFETY
18.	Occupational Health and Environmental Medicine for Medical & Non-Medical Executives of the Industries	December 7-11	IND. MED.

**REGIONAL LABOUR INSTITUTE, FARIDABAD (HARYANA)**

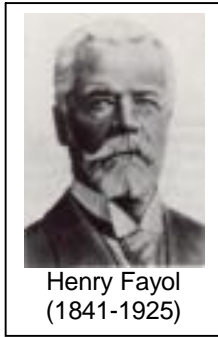
Telephone: 0129-246800-299 Fax: 0129-2737064

E-mail Address: [rlifaridabad@yahoo.com](mailto:rlifaridabad@yahoo.com)

S.No.	Title of the Programme	Period
1.	Human Factors in Occupational Safety, Health and Environment and their Management	April 22-24
2.	Management of Safety, Health and Environment at Workplace	May 12-13
3.	Physical Hazards and their Management at Workplace	June 15-16
4.	Management of Safety, Health and Environment at Workplace	July 20-21
5.	Environmental Hazards and their Management at Workplace	August 24-25
6.	Human Factors in Occupational Safety, Health and Environment and their Management	September 14-15
7.	Chemical Hazards and their Management at Workplace	November 16-17
8.	Behavioral and Ergonomics Factors and their Management at Workplace	December 08-09
9.	Management of Safety, Health and Environment at Workplace	January 20-21, 2010

Note: In addition to these training programmes, workshops/seminars will be organized depending upon the requirement and schedule. Two specialized training programmes for Small Scale Industry will also be organized.

## HENRY FAYOL (1841-1925)



Henry Fayol  
(1841-1925)

**Born 1841**

**Died 1925**

**Citizen, France.**

**Henry Fayol (1841-1925)** was a French management theorist whose theories in management and organization of labour were widely influential in the beginning of 20th century. Fayol was born in 1841 in Istanbul, Turkey and died in 1925 in Paris. He was a mining engineer who worked for a large French Coal Mining Company 'Commentry-Fourchamboult-Decazeville'. He first joined as an engineer and then moved into general management, and became Managing Director of the company (1888 to 1918). During his tenure as Managing Director he wrote various articles on 'administration' and management, based on his practical experience. During this period, he developed a blue print for a cohesive doctrine of management, which retains much of its relevance and force to this day. Fayol developed fourteen principles of management in 1916, in his book titled "Administration Industrielle et Generale" written in French and later translated into English as "Industrial and General Administration". He was referred to as "the father of modern operational management theory" and the founding father of the administrative school.

Fayol was a contemporary of FW Taylor. But unlike Taylor, Fayol concentrated on the activities of all managers. The works of Taylor and Fayol are essentially complementary. Both believed that proper management of personnel and other resources was a key to organisational success. Both applied the principles of scientific methods to the problems of management. The major difference in their approaches centered around their orientation. Taylor was a scientist, came through ranks and concentrated on the operative/worker level. Fayol was a management practitioner and spent most of his time in executive positions and had more of top management perspective. Fayol proposed that all operations in business organisations can be conveniently classified under six main interlinked headings such as, Technical, Commercial, Financial, Accounting, Security and Managerial. He concentrated mostly on management activities because he felt that managerial skills had been grossly neglected in business operations. He listed planning, organising, commanding, coordination and control as the main elements of management. His contribution to the management theory and practice is unique and valuable. He provided a conceptual frame work for analysing the management process. A number of current ideas and practices in management can be directly attributed to the pioneering work done by him. He originated the symbol of formal organisation, the organisation chart, which with his organisation manual of job description, remains the chief instrument of business management. He was the first management author to look at the organisation from the top down; to identify the management as a process; to break the process down into logical sub-divisions; and to lay out a series of principles to make best use of people, there by establishing a syllabus for management education. Fayol believed that managerial skills are universal and the managerial ability could be applied to any branch of human activity, such as, the home, the military, the school, the industry etc. This thinking ultimately led to the mushrooming growth of management institutions across the globe.

### **FAYOL'S PRINCIPLES OF MANAGEMENT AND THEIR RELEVANCE TO SAFETY AND HEALTH MANAGEMENT IN THE PRESENT CONTEXT:**

The following fourteen principles of management propounded by of Henry Fayol comprise a comprehensive framework of general organizational management.

**Division of work:** This principle is the same as Adam Smith's 'division of labour'. Specialisation increases output by making employees more efficient.

**Authority and responsibility:** Managers must be able to give orders. Authority gives them this right. Responsibility arises wherever authority is exercised. Authority should be equal to responsibility and vice versa. Similarly safety and health professionals should have authority, commensurate with responsibility for discharging their duties effectively for the promotion of safety and health at work place.

**Discipline:** Employees must obey and respect the rules that govern the organisation. Good discipline is the result of effective leadership. A clear understanding between management and workers regarding the organisation's rules, and the judicious use of penalties for infractions of the rules is essential even for safety and health function.

**Unity of command:** Every employee should receive orders from only one superior and not from multiple bosses. He should not be made to report to several bosses. Lack of unity of command is like "too many cooks spoil the soup". Similarly, safety and health professionals should report to the top executive for achieving better results.

**Unity of direction:** Each group of organisational activities that have the same objective should be directed by one manager using one plan. Hence, there should be 'one head and one plan' and cannot be different plans for the same



## BIOGRAPHY

---

group of activities. In the case of safety and health, there will be unity of direction, only when all the safety plans are coordinated at a higher level.

**Remuneration:** Workers must be paid a fair wage for their services. Fayol stressed that apart from financial benefits, non-financial benefits such as good working conditions, canteen and recreation facilities are essential.

**Centralisation:** Centralisation refers to the degree to which subordinates are involved in decision making. Whether decision making is centralised (to management) or decentralised (to subordinates) is a question of proper proportion. The task is to find the optimum degree of centralisation for each situation.

**Scalar chain:** The line of authority from top management to the lowest ranks represents the scalar chain. Communications should follow this chain. However, if following the chain creates delays, cross-communications can be allowed, if agreed to by all parties and superiors are kept informed.

**Order:** It means there should be place for everything, and everything must be in its place. There must be a place for everyone, and every one must be in place is equally relevant for promotion of safety and health at work.

**Equity:** a combination of kindness and justice in dealing with employees.

**Stability of tenure of personnel:** High employee turnover is inefficient. Management should provide orderly personnel planning and ensure that replacements are available to fill vacancies. This is also equally important in the case of safety and health professionals.

**Initiative:** Employees who are allowed to originate and carry out plans will exert high levels of effort. Since, safety is the collective responsibility of employers and employees, the management should encourage the initiative, zeal, and enthusiasm of the employees for contributing suggestions and ideas for promotion of safety and health.

**Subordination of individual interests to the general interest:** The interests of any one employee or group of employees should not take precedence over the interests of the organisation as a whole and the same is equally applicable to safety and health function.

**Esprit de corps:** This emphasises the need for building and maintaining of harmony and unity among the work force, team work and sound interpersonal relationship within the organisation. Safety and health professional can achieve a great deal in the area of safety and health, if the activities are carried out in the spirit of team work and harmony.

## INFERENCE

Fayol's views have been criticised for weakness of analysis and assessment; for the overlap in his principles, elements and duties; for confusing structure with process; and an overreliance on top down bureaucracy. In spite of this criticism, his principles are the time tested and universal truths of management that are still relevant in today's context. These principles act as a guide for the thinking of managers including safety, health and environment management professionals at different positions in order to resolve concrete business problems they encounter in the process of management. In this globalised, dynamic and fast changing business scenario, where downsizing and right sizing has become the order of the day, and traditional hierarchies are giving way to flat management, these principles need a change of orientation, fine tuning in their application to the given situations and prevailing cultural ethos. Even, Fayol did not advocate blind obedience/adherence to fixed course of action, but he relied upon manager's experience and sense of proportion to guide the degree of application of these principles in any situations. Safety, health and environmental management professionals, like production, finance, marketing etc. can apply these management principles for achieving better results and greater success in the area of safety, health and environment.

## REFERENCES:

1. Sandra Anderson & Carol bake, Business; The Ultimate Resource, Perseus Publishing House, New York, 2002.
2. Wikipedia, The Free Encyclopedia.
3. Rao.V.S.P. and Narayana P.S., Principles and Practices of Management, Premier Book Company, New Delhi, 1992.

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

# ESTABLISHMENTS OF DIRECTORATE GENERAL FACTORY ADVICE SERVICE & LABOUR INSTITUTES

## ESTABLISHMENTS OF DIRECTORATE GENERAL FACTORY ADVICE SERVICE & LABOUR INSTITUTES

