



# The Institution of Engineers (India)

## SAFETY AND QUALITY FORUM

• Vol. - 4 • Issue -2 • June 2008

### Workshop on Quality, Safety and Environment Management in Construction on May 30, 2008 at New Delhi

The Safety & Quality Forum of The Institution of Engineers (India) organised One day workshop on "Quality, Safety and Environment Management in Construction" on May 30, 2008 at Institution's premises in New Delhi.

The workshop was structured in five sessions. Each session witnessed specialized presentation on a specific topic related to the theme of the workshop.

In the opening session Shri O. P. Goel, Chairman, Safety & Quality Forum welcoming the delegates mentioned that the workshop has been planned to apprise the participants about the latest developments taking place in the field of "Quality, Safety and Environment Management in Construction". Dr. G.S. Yadava, Chairman, The Institution of Engineers (India), Delhi State Centre spoke about the imperativeness of promoting the awareness of "Quality, Safety and Environment Management in Construction" to the upcoming professionals. Shri Pradeep Chaturvedi, Past Chairman, Safety & Quality Forum briefed the delegates on the issue of safety regulations in the global arena. Shri B. Majumdar, Director of the workshop proposed a vote of thanks.

In the first session, presentation on System Approach for Quality in Construction Works was made by Prof. P. Krishnan, Former D.G. (Works), CPWD.

In the second session, presentation on Safety in Construction Activities by Shri A. K. Tandon, was presented by Shri K. K. Gera, Sr. Manager, EIL.



In the third session, presentation on Contractual Aspects of Safety was made by Shri. N.P. Anand, Dy. General Manager (Safety), National Building Construction Corporation Ltd.

In the fourth session, presentation on Health, Safety and Environment Management in Construction was made by Prof. V.K. Paul, Department of Building Engineering & Management, School of Planning Architecture.

In the fifth session, presentation on Integrated Management of Quality, Safety, Health & Environment in Construction (A Case Study) was made by Shri Mangu Singh, Director (Express line), Delhi Metro Rail Corporation Ltd. He gave a detailed over view of the works and systems of Delhi Metro.

Dr. G.S. Yadava gave "Certificate of Participation" to the delegates in the concluding session.

### Safety Convention 2008

**Preamble :** The volatility of global economy and rapid pace of the Indian economy has made the successful performance of different sectors possible. "Perform" or "Perish" are the terms defining destiny of any company. Leading edge can be achieved only by ensuring efficient performance of different sectors. Ensuring and maintaining OSH Standards with the global competitiveness are the key elements for success of any industry on the global platform. Safe design, manufacturing and marketing are the keys for the success of an economy.

**Objective :** The Safety Convention 2008 will focus on the role of Occupational, Safety, Health and Environment in attaining sustainable economic growth.

**Theme :** Occupation Safety, Health, Environment and Challenges of Globalization.

**Thrust Area :** Ensuring Safety in Transportation Sector for Sustainable Economic Growth.

#### Safety Innovation Award

Outstanding Government Organisations, PSUs, Corporates and Private Sector industries will be conferred with the "Safety Innovation Award" for the initiatives undertaken for introducing concepts of awareness and working culture in the fields of Occupational Safety, Health & Environment. Individuals may also apply. Interested organizations can submit their proposal, latest by July 31, 2008 in proper format. Application form can be downloaded from website: [www.sqepf.org](http://www.sqepf.org)/[www.ieidsc.org](http://www.ieidsc.org).

## Technical Lecture on "Safety- State of Mind" February 14, 2008

The Safety & Quality Forum of The Institution of Engineers (India) organized technical lecture on "Safety-State of Mind" on February 14, 2008 at Institution's premises. Shri Jagman Singh, Past President, The Institution of Engineers (India) delivered the lecture.

Welcoming the guests, Shri O P Goel, Chairman, Safety & Quality Forum, The Institution of Engineers (India) briefed about the various activities organized by the Forum in the field of Safety. He mentioned that the forum has been actively aiming to inculcate the "Culture of Safety" at the grassroots level.

Addressing the audience, Dr. G S Yadava, Chairman, The Institution of Engineers (India), Delhi State Centre shared his experience on the Safety practices being followed in the shop floor maintenance and the outlook of the professionals toward Safety. He stressed on to have concrete training programme on Safety in the curricula of Engineering qualifications.

Delivering the lecture, Shri Jagman Singh mentioned about the main problems relating to Safety faced in the engineering industry are basically Safety of structure during erection and demolition, Safety of construction equipment and Safety of personnel. Realizing the heavy aftermath loss due to insufficient Safety of personnel, Shri Jagman Singh stressed on to have efficient Safety programme, recognized by the top management, on a construction job. He reiterated that distinction must be



made between efficiency and productivity, when related to accident prevention, which ultimately will encourage Safety Culture. He also briefed about the various facets of "Safety Analysis" and pointed out that the analysis should be able to identify and predict with reasonable accuracy about the severity of the accidents. The lecture also covered in detail about the application of Safety devices in cost reduction in industries and the significance of Safety departments.

Mr. R N Rajpoot, Honorary Secretary, The Institution of Engineers (India), Delhi State Centre coordinated the programme and proposed the vote of thanks. Nearly 70 members & invitees attended the programme.

## Seminar on "Safety in Engineering" May 02, 2008

Safety and Quality Forum (Eastern Regional Centre), The Institution of Engineers (India), West Bengal State Centre organized a seminar on "Safety in Engineering" on May 02, 2008 at Sir R.N. Mookerjee Hall of the Institution in a befitting manner.

The seminar was inaugurated by Prof.(Dr.) Samiran Chaudhuri, Past President, IEI in his brief address Dr. Chaudhuri stated that though in any engineering system and design engineers maintain "factor of safety" but the issue of safety and quality is now become very relevant to adhere to the need of global competitiveness. As such the move taken by the SQF (ERC) in the seminar to address the issues of safety in engineering with primary focus on transport, infrastructure, health and environment which are the major challenges in this century for the engineers is very appropriate and timely.

This seminar was addressed by two eminent guest speakers Prof. K. J. Nath, Former Director, All India Institute of Hygiene and Public Health, Govt. of India and President, Institute of Public Health Engineering and Er. Pradeep Chaturvedi, Former Chairman, SQF, IEI. Prof. Nath delivered by an exhausted lecture on "Environmental Health Safety: Issues and Concerns" punctuated with his experience which enriched the august gathering of engineers present in the seminar. Er. Chaturvedi primarily highlighted the major issues of safety in infrastructure and the challenges before the engineers to deal the issue in right perspective.



Prof. N. R. Bandyopadhyay, Chairman, SQF (ER) while presenting the objective of the seminar also stated the genesis and purpose of creation of Safety and Quality forum by The Institution of Engineers (India). He opined that by organizing various activities like present seminar, strategy should be developed to ensure effective national movement of this issue.

Er. Amal Mukherjee, Member, Board of Governors, SQF, IEI presided over the function and Er. Anik Roy Chowdhury, Chairman, WBSC, IEI welcome the delegates and guests present in the seminar. The seminar was attended by around 100 delegates. Sri. Manik Chandra Ghosh, Hony. Secretary, WBSC, IEI proposed the vote of thanks.

## **All India Seminar on “Quality and Safety Concerns in Engineering Operations” organized by Rajasthan State Centre - IEI during April 12-13, 2008 at Jaipur**

All India Seminar on “Quality and Safety Concerns in Engineering Operations” was organized by Rajasthan State Centre of The Institution of Engineers (I) under the aegis of Safety & Quality Forum, I.E.(I) and Interdisciplinary Coordination Committee of The Institution of Engineers (I) during 12-13 April, 2008 at IEI premises at Jaipur. The Seminar was supported by Quality Council of India & ICT Ltd.

Shri Ashok Parnami, Mayor, Jaipur Municipal Corpn., Jaipur was the Chief Guest at the Inaugural Session while Shri K.K. Kapila, President, Consulting Engineer Association of India & CMD, ICT Ltd., New Delhi & Shri K.B. Rajoria, Former Engineer-in-Chief, PWD, Govt. of Delhi were the Guest of Honour. Shri. O.P. Goel, Chairman Safety & Quality Forum, presided over the function. Shri R.P. Gupta, President I.E.(I) was the Special Guest on the occasion.

Shri R.C. Bairathi, Chairman, R.S.C.-IEI delivering the welcome address emphasized that high quality products must be manufactured to internationally acceptable quality and safety standards to minimize risk to life and property in engineering operations. Dr. J.L. Sehgal, Hony. Secretary, R.S.C.-IEI introduced the theme of the seminar stated that five key note addresses and nine technical papers will be presented by the experts during the seminar.

The Guest of Honour Shri K.K. Kapila, in his address stated that huge investments are being made in the real estate sector, today. Every building / structure should be considered as a national asset, where quality and safety concerns in engineering operations should be made the zen of all activities. Quality of construction manufacturing should be given its due importance by inculcating.

The Guest of Honour Shri K.B. Rajoria stated in his address, that Safety and quality concerns are interrelated and are multi-dimensional in nature. We need to institutionalize the safety and quality measures which are required to be undertaken regarding the safety and security of structures and personnel.

Shri O.P. Goel, Chairman, Safety & Quality Forum stated in his address that Indian economy is poised for a double digit growth during the next decade. Manufacturing and services sectors must grow together for economic prosperity of the country. Safety and quality concerns must be addressed appropriately in all types of engineering operations, to avoid, financial losses, loss of life and property, poor quality of executed works, and reduction in profits due to rejection and re-doing of partly-finished works and lowering of productivity.

Shri R.P. Gupta, President, The Institution of Engineers (I), in his address stated that safety and quality concerns are interrelated in engineering operations. High quality



standard products are safer for use in engineering operations. Safety is a fundamental engineering imperative and the Safety and security of personnel at the work place is a basic human right. It is essential that quality and safety standards are maintained in the construction of scaffoldings, fabrications, structures, manufactured goods and services. Safety requires continuous monitoring and sustained research. Collection of information about defects/accidents and near misses and analysis of their causes for obviating recurrence of defects and accidents is an important factor in safety engineering.

The Chief Guest Shri Ashok Parnami, in his inaugural address, appreciated the role being played by the engineers and the Institution of Engineers (India) in achieving the goals of the nation. He suggested that the Rajasthan State Centre of the Institution of Engineers (India) could provide engineering consultancy services to the state government departments and MCD, Jaipur for the planning and execution of various development projects. He emphasized that the quality and safety of buildings, structures and manufactured goods and services must be ensured at all costs.

Vote of thanks was delivered by Shri P.C. Sanghi Organizing Secretary of the seminar. The Inaugural Session was attended by more than 98 engineers and guests & was well covered by media and T.V. channels.

In the first technical session, three invited lectures were delivered by the experts.

Shri K. B. Rajoria, Former Engineer-in-Chief, PWD, Govt. of Delhi stated in his address that quality management is necessary to achieve the standards of quality, which are a part of the overall management function and include, evolving and implementation of the quality policy.

Shri A.K. Jain, Commissioner Planning, Delhi Development Authority, stated in address that even after 60 years of the independence of India, while we have joined the club of nuclear powers, we are far from the

freedom from dangers. The prevailing fragmented and territorial approaches have failed to ensure safe living to the citizens, particularly in the urban areas. As the United Nations had celebrated the World Habitat Day-2007 with the theme, "A Safe City is a Just City", this is a good opportunity to take stock of the issues of safety and security in our cities and rethink how we can make the life of the people, and the human settlements more safe.

Shri Pradeep Chaturvedi, Past Chairman Safety & Quality Forum, The Institution of Engineers (I), stated in his key note address that Quality concept has moved far beyond the quality of products and services. In the globalised economy, corporations have become the engines of social and economic transformation. We are living in exciting times. The general impression is that never in the history of mankind, the aspirations have risen so sharply. Also, never before the gap has been smaller between what can be imagined and what can be achieved. Global competition is becoming tougher day-by-day. To compete successfully in the global marketplace, organizations must have the ability to produce a variety of high quality, low cost products that fully satisfy customer's immediate needs and can retain his confidence to be effect that the product or service will run efficiently during its promised life time. Tomorrow's leaders will be those companies, that can make fundamental changes in the way organizations develop technologies, and design and produce products. Use of quality tools like, six sigma, and balanced scorecard, etc have their own utility and reduce variability in the supply market.

In the second technical session, two key note addresses were delivered by Er. A. Deobhakta, Sr. Director, IIQM, Jaipur and Shri K.M. Soni, General Manager (Engg.), ITPO, New Delhi respectively

Er. A. Deobhakta stated in his key note address that regulatory requirements are growing continuously due to the raises in the level of globalization, environmental concerns and the occupational health and safety requirements. The role of regulatory authorities will increase phenomenally in the coming years.

Shri K.M. Soni stated in his key note address that accidents do not happen, but they are caused due to complacency, negligence (unsafe actions), non-observance of safety procedures unsafe / unhygienic working environment and bad execution / bad house keeping / bad facilities management. The role of maintenance management is extremely important. Bad planning leads to disasters. We need to focus on the role of engineers; development of positive attitude of engineers and workers, role of top management, strong will and safety and promotional rewards for good workers.

The following papers were presented by the authors during the second technical session.

"Safety in Construction Operations" by Deepak Narayan; "Make Quality, Get Safety, Go Lean" by Piyush Mishra, P.C. Meena, Dr. G.S. Dangayach & Dr. M.L. Mittal; "Recent Trends in Industries: The Safety Culture" by Anupam Krishna, P.C. Meena, Dr. G.S. Dangayach & Dr. Rakesh Jain and "Quality Improvement Plan in an Industrial Organization" by Manoj Kumar Mahawar, Dr. Awadhesh Bhardwaj.

During the Technical Session III, two key note addresses were delivered by Shri Avik Mitra, Advisor, QCI, New Delhi and Shri R.K. Govil, Chief Engineers, CPWD, Jaipur respectively.

Shri Avik Mitra stated in his key note address that the Quality Council of India and the Institution of Engineers (India) have a great responsibility in promoting the concepts of Quality and Safety in all engineering operations. Demand for awareness programmes and training and education for safety and quality issues is increasing at an accelerated pace. Therefore, we need to act fast for organizing all India seminars on similar lines in different stations / large organizations to bridge the gap in dissemination of information.

Shri R. K. Govil, C. E. CPWD, Jaipur during his key note address stated that government departments are performing only 50% of checks on specifications and quality and safety controls. Implementation of the required quality control measures is not upto the standard.

The following papers were presented by the authors during the second technical session.

"Penetration and Prevention of Crime in Cyber World" by Ajeet Singh Poonia, Dr. Awadesh Bhardwaj, Dr. G.S. Dangayach; "Crumb Rubber & Beach Sandal Manufacturing" by Abraham Cyrilissac; "Role of 5 'S' in Safety & Quality" by A.S. Mehta and "Quality & Safety Concerns in Maintenance Engineering" by Dr. J. L. Sehgal, Er. G. D. Mehra.

Shri O.P. Goel was the Chief Guest at the Valedictory Session while Shri Avik Mitra was the Guest of Honour.

Shri Chandra Kumar gave a brief account of the proceedings of two days seminar and its outcome. The Chairmen presented reports of their respective technical sessions.

Shri O.P. Goel presented certificate to all the participants and authors. Vote of Thanks was given by Shri P. C. Sanghi.

## Valedictory Function of Fire Safety Week 2008

Theme: - "Fire Prevention... Do it for Life"

April 17, 2008

### Valedictory Function

The Forum organized valedictory function of Fire Safety Week 2008 on April 17, 2008 at Institution's premises jointly with Delhi State Centre of IEI & in collaboration with Delhi Fire Service. Shri R.C. Sharma, Chief Fire Officer, Delhi Fire Service, was the Chief Guest on the occasion.

Welcoming the audience, Shri O.P. Goel, Chairman, Safety & Quality Forum appreciated the extensive measures taken by Delhi Fire Service, during the last few years, in curbing the fire disasters. He mentioned that Safety & Quality Forum of IEI had promoted various programmes in different parts of the country to generate awareness among the common masses against various disasters.

Speaking on the occasion, Dr. G.S. Yadava, Chairman, IEI-DSC lamented on the state of building structures in some parts of the capital, specifically in the crowded places where free movement of fire brigade's vehicles is difficult. He stressed on the usage of right appliances for minimising the losses due to fire disasters.

Chief Guest of the function, Shri R.C. Sharma in his address appreciated Safety & Quality Forum of IEI for taking initiatives in organising such type of programmes. He reiterated the fact that fire can occur anywhere and at any time. The over-confidence of fire proof places/appliances have always led to heavy fire disaster. He mentioned that various studies have shown that 30% reasons of fire disasters are only due to careless attitude



and deliberate acts. He cited various examples and incidents, where presence of mind by general people had avoided horrible disasters.

Shri Sharma also apprised the audience about the various measures & programmes initiated by Delhi Fire Service to meet the rising demand of the city. He mentioned that more fire stations will be established in the near future to reduce the response-time of any accident, alongwith computerization of existing fire stations.

Shri R.N. Rajpoot, Honorary Secretary, The Institution of Engineers (India) Delhi State Centre coordinated the programme & proposed the vote of thanks. The programme was attended by nearly 70 members of IEI & invitees.

## World's Worst Natural Disaster That took the maximum toll since 1990



### Floods, Gidal waves

1931	China	3.7 Million
1970	Pakistan	200,000
1975	China	200,000
1971	Vietnam	100,000
1954	Iran	10,000

### Earthquakes, Tsunamies

1976	China	255,000
2004	Indonesia	225,000
1920	China	200,000
1927	China	200,000
1923	Japan	140,000
2008	China	62,000

### Cyclones

1970	Pakistan	200,000
1991	Bangladesh	131,000
1965	Pakistan	47,000
1963	Pakistan	22,000
1971	India	10,000
2008	Mayanmar	80,000

### Hurricanes

1998	Mitchi	14,500
1970	Fifi, Honduras	8,000
1975	Flora, Caribb	7,200
1971	Galveston, Tx	8,000
2005	Katrina, US	1,800

## Obituary

Shri A. Chakarbarti, (FIE), Council Member passed away on February 09, 2008 at Delhi. Born on December 28, 1947, he Graduated in civil engineering from the then Bengal Engineering College, Shibpur, in the year 1968. He joined Central Public Works Department (CPWD) and rose to the post of Director General (Works). An accomplished engineer, he played a pivotal role in organizing the World Congress on 'Urban Infrastructure in Developing Countries' and WFEO General Assembly and New Delhi in the year 2007.

## Safety & Quality Award 2008

### The Awards

The Awards will be presented on the basis of applications received from different individuals and selection made by a Committee approved by the SQF, Board of Governors. Each winner shall receive an award i.e. a Plaque of Honour along with a Certificate and Citation.

Award winners can use the Award Logo on their print and promotion materials by mentioning the Year of the Award and the name of The Institution of Engineers (India) and Safety & Quality Forum.

These Awards will be given every year. The Safety/Quality Awards 2008 will be presented at the Indian Engineering Congress, 2008.

**Last Date :** The last date of submission of Application Form is August 31, 2008.

**Application Form :** The Application Form can be downloaded from our website "[www.sqepf.org](http://www.sqepf.org)" or it can be collected from our office at Delhi State Centre-IEI, New Delhi.

## Forth Coming Events

Training Programme on Total Quality Management for Civil Construction on July 25-26, 2008 at New Delhi.

All India Seminar on Bio-Diesel and Ethanol as Sources of Renewable Energy on September 5-6, 2008 at Karnataka.

Safety Convention 2008 on "Occupational Safety, Health & Environmental and Challenges of Globalization on September 11-13, 2008 at New Delhi.

*For further enquiries contact :*

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