

Workshop on Fire Lifts

by Snehal Toralkar

“What is so special about this workshop on fire lifts?” This must be the thought going through readers’ minds. This event was special and important; not only from the elevator industry’s perspective, but also from the perspective of the end users – the firefighting personnel. The workshop was held on February 3, the first day of the International Elevator and Escalator Expo (IEE Expo) was at the Bombay Exhibition Center in Goregaon, in Mumbai. There were more than 100 registered for this event.

The purpose of this workshop takes me to an accident that took place six months ago, on the first day of Diwali. Six firefighters on an operation to put out a fire at a flat on the 14th floor of a residential building were found dead in the elevator they had taken in a rush to fulfill their responsibility. This accident raised public concern about high-rise building safety systems. The media reported its own assumptions, adding more panic to the minds of the public.

With the concerns and divergent views involved, the Maharashtra Public Works Department (PWD) appointed experts from TAK Consulting in order to investigate and give their opinions on the incident. Afterward, TAK Mathews realized the gaps in the whole process and took steps to organize this workshop. He realized that an open discussion was needed between the elevator suppliers and fire authorities to establish an understanding of their needs and requirements during the rescue operation and,

of course, the PWD statutory authorities. In addition, building developers, consultants and architects need to be educated on the needs and safety requirements by incorporating them into their designs.

Considering these issues, the Workshop on Fire Lifts, which took place concurrently with the IEE Expo 2010, was an excellent idea and provided an opportunity to take serious steps for further change. It is to the credit of the organizers of the Expo, Anitha Raghunath and G. Raghu, who did not hesitate to adjust the expo schedule in order to accommodate this workshop.

The attendees included renowned developers, architects and consultants in the elevator industry, and fire personnel and statutory authorities from around the country.

The workshop started at around 11:30 a.m. with Mathews welcoming the participants. He thanked M.V. Deshmukh (the main architect of the workshop) and the organizers of the expo for their commitment to the elevator industry. He then introduced the workshop and its structure. On behalf of the audience, Mathews also took the opportunity to thank the firemen for their selfless sacrifice to society. Each fireman at the workshop was presented flowers as a token of appreciation.

After this introduction, R.R. Iyer, currently working as the management consultant for various industries shared his experiences garnered from his more than 30 years experience in the elevator industry. Iyer emphasized the

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Expo panelists



Firemen being honored for their sacrifices

need to upgrade codes and develop a standard operating procedure for fire authorities. Mathews then took participants through the requirements for fire lifts specified in National Building Code (NBC) 2005, Part 4 and Part 8, Section 5. This review was to understand what the code mentions about fire lifts and the issues and gaps involved.

The workshop picked up pace when the experts from various states sat for the Open Panel Discussions. Deshmukh, director of Fire and Emergency Services and fire advisor, Government of Maharashtra; S.K. Dheri, V. Suresh, vice chairman of NBC 2005; S. Veeramani and M. Namasivayam expressed their views and experiences about the fire incidents and the necessary changes that need to be made. There were also discussions with architects, developers and consultants about issues in which they are actively involved.

As the fire-resistance property for doors is an important factor involved, a presentation on this topic was also organized. Sergio Biglino from the Wittur Group delivered this presentation, and gave details about fire rating, definition, testing and methodology as per the norms set out by the European Community and in EN81-72.

After lunch, attendees were divided into four groups for discussions on topics pertaining to fire lifts. Group one discussed issues pertaining to fire lifts, number capacity, speed by building type, and size and height of buildings. Group two talked about issues involving pressurization and sprinkler norms and application (by building type, size and height), lift lobbies, hoistways and refuge area norms. Group three discussed fire lift operation, phases I and II and the standard operating procedure. The final group covered issues related to fire resistance, norms for lift doors, lobby doors, hoistway walls and landing lift components.

Discussions were carried out by each of the groups, and necessary changes were highlighted by the groups' representatives. It was also pointed out that, depending upon building structure; necessary standard operating procedure is to be laid out. Uday Tatkare, chief fire officer



R.R. Iyer



M.V. Deshmukh



S.K. Dheri



V. Suresh

in Mumbai, talked about the existing standard operating procedure in Mumbai.

Dheri followed Tatkare's discussion by adding:

"I think the work done by all the different groups has been quite conclusive. What we need, basically, is to consolidate it in one document of recommendation. And this document of recommendation should be sent to [the] Bureau of Indian Standards. And we will try to get it incorporated in Part IV. Truly, this will take some time for the necessary approvals to happen. But, I think there shouldn't be any problem in adopting these particular minutes, as I am personally involved in this process. There shouldn't be any difficulty in adopting them into the new code."

At the close of the workshop, T.Bruce MacKinnon, executive vice president and chief operating officer of Elevator World, Inc., reiterated EW's commitment to India. MacKinnon presented the representatives from the various state fire authorities at the workshop with the books *Emergency Evacuation Elevator Systems Guideline* by the Council on Tall Buildings and Urban Habitat, *Elevator and Escalator Rescue* by Theodore Lee Jarboe and John O. Donoghue, and *Firefighting Operations in High Rise and Stand Pipe Equipped Buildings* by David M. McGrail. MacKinnon also assured the audience that many books related to fire rescue, evacuation and the maintenance of elevators will be made available in India.

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S. Veeramani



M. Namasivayam



Sergio Biglino



Uday Tatkare



The breakout discussion groups

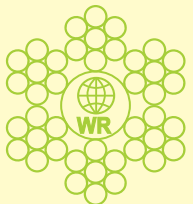


MacKinnon presents donations to state fire authority representatives.

As a whole, this workshop was pathbreaking, as it brought together policy makers, implementers and end users in a single forum that has initiated a new beginning in this important topic.

Snehal Toralkar is a design consultant with TAK Consulting Pvt. Ltd., where she is involved in the designing and specifying of elevators. Prior to joining TAK Consulting, she worked with Schindler India as a design engineer and was involved in the launch of the S3300/5300 products. She has a degree in Mechanical Engineering and more than five years of experience in the elevator industry.

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Reaction to Fire Workshop

I would like to be a little critical, not because of your faithful efforts, but because of our conservative patterns at large. We can agree that perhaps without dispute that our emphasis on R&D is very poor, generally in every field and extraordinarily poor in fire services. I have been chief fire officer for about 20 years, supervising various divisions consisting of many districts, having 50-60 fire stations, with a Bachelor of Engineering degree. On this basis, I would like to mention that the opinion of a chief fire officer or any other fire-department official cannot be a substitute of an indication projected through case studies. This is the basic lacuna of such workshops and their recommendations, which are not well supported by R&D findings.

Some other issues that did not meet their destination during deliberations are:

- ◆ Aesthetics should never be considered over and above the considerations of minimum life safety standards.
- ◆ Alternate solutions should never impede functioning or availability of natural/manual means, which is the last resort for life safety.
- ◆ Codes are codified by taking onsite life safety requirements into consideration and thereby framing standards with the help of available engineering parameters, which has to be associated with the scientific and logical explanation. Hence it is of paramount importance that every code needs to be decoded accordingly to meet the practical response of an emergency situation. Obviously codification needs to be linked more closely with R&D.

The outcome of the workshop may have been a recommendation for Business Information System and fire departments to make provisions for mandatory case studies of actual fire accidents, for projecting implications of adopted norms. Also, the lift manufacturers should do something to bring their standards closer to the actual accident situation in terms of technical, psychological, environmental and local requirements. Otherwise, we will keep on serving half-cooked dishes. However, your efforts and spirit cannot be devalued, but rather appreciated for creating such a platform where I, along with many, have had this opportunity to put up their contentions for a public cause.

J.K. Singh

*Chief Fire Officer/vice principal,
UP State Fire Training College*