

Workshop on Lifts

by Manisha Gangal and Nalini Raghavan

TAK Consulting organized a full-day workshop on lifts for electrical inspectors from the Maharashtra Public Works Department (PWD) on December 14, 2009. The workshop focused on new technologies, the inspection approach for lifts, basics of traffic analysis and code requirements, National Building Code (NBC) 2005 clauses on fire lifts, ropes, considerations for high-speed lifts and safety governors.

The new technology selected for the workshop was ThyssenKrupp's TWIN system. Santosh Lad from ThyssenKrupp presented the product and detailed the approach that has been adopted to address the possible code violations stemming from the new concept. The PWD inspectors requested that ThyssenKrupp formally initiate discussions to enable modification of the prevailing act and codes to ensure that this new concept can also be incorporated in some of the new high rises being planned in Mumbai. The inspectors were then taken through the provisions of IS 14665 Part 5: 1999 in relation to the requirements for inspecting lifts.

TAK Mathews presented the fundamentals of traffic analysis and the code requirements for designing lifts. He stressed the criticality of a proper design approach for any building. He demonstrated through case studies how some of the high-rise buildings being designed and developed today do not have proper design approaches for lifts and how these buildings would be paralyzed without an adequate vertical-transportation system.

Mathews then took the inspectors through the various provisions of NBC 2005 (covered under Parts 4 and 8 and Section 5) related to fire lifts and lobbies. The discussions covered the various requirements and some of the issues related to the provisions. He pointed out the prevailing confusion related to the requirements and the various contradictions between the code and local requirements leading the suppliers to interpret the provisions in their own ways. Mathews illustrated how the different norms being adopted, as well as the prevailing confusion, could lead to a serious incident.

The other new technology topic was flat belts, which was facilitated by Snehal Toralkar. She presented the details of the recently introduced flat belts and their testing methods. PVN Marar followed with the details of conventional steel ropes, their construction, how to install and maintain them, and provisions of IS 14665 Part 4, Section 8: 2001. He then took the inspectors through various considerations for high-speed lifts and requirements for ride quality. He discussed how jerk, vertical and horizontal vibrations, and pressure change could impact the human body.

CS Ananthasivan then presented the technicalities of safety gears and governors, and the IS provisions detailed by IS 14665 Part 4, Section 4: 2001. This was followed by site visits and a demonstration of the testing methods. The site visit was facilitated by R Ramesh of City Lifts.

RR Daga, on behalf of the Maharashtra PWD, declared that the inspectors appreciated the workshop and requested that future ones be conducted more often, with a special time slot for open discussions on specific issues that may occur while inspecting lifts in the field.

After the workshop, Chief Lift Inspector SM Bhasme wrote to TAK Consulting:

"My colleagues and I would like to thank you for the effort put in by you. We would appreciate if such workshops are held on a regular basis. This would help us to keep up with the trends in the industry and make our operation more effective."

