

## Fire safety is a joint responsibility

To make Mumbai safer from fire, the Mumbai Fire Brigade plans to make it mandatory for the housing societies to have fire compliance in place as an integral part of the annual process.



**Hemant D. Parab**  
Chief Fire Officer  
Mumbai Fire Brigade

"Housing societies have annual general meetings, account auditing, etc. we plan to have the submission of Form B on fire compliance an annual feature in collaboration with housing society federation," said Hemant D. Parab, Chief Fire Officer, Mumbai Fire Brigade.

This measure is an attempt to ensure residential buildings are better equipped to reduce damage caused by fire incidents.

Recently, the department has initiated conducting mock drills and awareness sessions with the residents to make them aware of the measures required. "This is to inculcate a sense of fire safety from preventive, precautionary measures required to evacuation and dousing the same," said Parab.

"It also helps in ensuring why the fire-fighting system has to be kept operational as it takes a lot less time to extinguish a fire when the firemen arrive at the spot, because 'firefighting is everyone's responsibility to drastically cut down on human and material loss," added Parab.

During the pandemic, other establishments that were covered were peripheral hospitals and Covid-19 centres. Now, each of the personnel right from the security guards to the doctors are aware of their roles in an eventuality.

Apart from these initiatives, the Mumbai Fire Brigade will be recruiting over 700 people to increase the staff strength from around 2,800 to over 3,500.

On upgrading the department with more equipment and apparatus, Parab

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## Education on fire safety is a must in schools



**Kishori Pednekar**  
Hon. Mayor of Mumbai

**Mumbai has redevelopment projects and new construction, what are the challenges faced?**

Wherever redevelopment is happening, the plots themselves are of smaller sizes. With narrow lanes, cars are parked outside buildings. If there's a fire or someone falls, such hurdles are an obstruction for ambulances and fire department vehicles. In every ward, we have created free parking zones at 1-1/2 kilometre distances from such congested localities. However, people do not utilise them. Whenever there's an emergency call, the fire department has to deal with such challenges by getting vehicles removed. At times, the vehicle owners do not turn up or co-operate. Hence we suggest that car owners should park at the dedicated parking lots so that the lanes aren't congested. When there is a fire or any other incident, the department has a lengthy hose, fire ladders, etc. So, we have solutions in place, but not in their entirety.

**Is there a need to emphasise fire safety in a systematic manner right from the school level?**

In 2018, there was a fire in a residential building at Parel, a 10-year old school student Zen Sadavarte saved a dozen lives with her presence of mind. This happened due to the fire training she had received at her school on what should be done in case of a fire. During her training, she was taught that if there is smoke, a wet cloth should be put up at the ducts or doors/ windows from where the smoke emanates. Another wet cloth should be put up as a mask to ensure you don't inhale the smoke having carbon monoxide that causes maximum damage to the lungs and results in a person becoming breathless and getting asphyxiated. These initial 10-15 minutes are crucial. If a person manages to act quickly with calmness, lives can get saved as by then the fire personnel are already there at the spot to rescue people stuck inside. Such training should be imparted in schools. All it requires is 10-15 minutes, daily. Posters can also be put up inside the school premises for greater awareness of fire safety. If it is implemented, I am sure many more lives will be saved by students who will be adults tomorrow.

## 'MUMBAIKARS SHOULD ALWAYS ENSURE FIRE SAFETY IN THEIR PREMISES'

Under the aegis of MCGM, Mumbai Fire Brigade has been augmenting facilities, introducing innovations and enhancing community participation initiatives

**Why is Mumbai more vulnerable to fire hazards?**

Being an island city, the availability of land for horizontal growth in Mumbai is limited and hence development has happened in vertical manner in the form of high-rise buildings. Fire-fighting and rescue in such structures is always a difficult task. Apart from this, the large number of eateries, multiplexes and malls have created additional fire hazards which need to be tackled. Given its landlocked nature, Mumbai has limitations to how much it can expand. Ensuring fire safety is a challenge for every urban area, but it is particularly greater in Mumbai as it is a unique city in terms of the small lanes, parked vehicles blocking access to buildings, the number of commuters that transverse it especially during peak hours hampering swift response and so on. Residents of many buildings do not make the effort to maintain fire safety equipment and there are instances where refuge areas are used for storage, etc.

Being the commercial and financial capital of India, Mumbai witnesses a huge influx of people at an accelerated pace who come here from all walks of life in search of livelihood. The population density is very high and as a result, the structures where they reside and work are also numerous, with limited space separating them. This makes it easier for fires to spread whereas combating them becomes more difficult. So all these factors put together make Mumbai more vulnerable to fire hazards.

**Mumbai Fire Brigade is the largest in India, what are the systems to co-ordinate such a vast undertaking?**

Mumbai Fire Brigade (MFB) is one of the largest fire services in the country and we are endeavouring to provide the best fire services to each and every corner of the city. Mumbai has high rise buildings, petrochemical refineries, multinational companies, multiplexes, malls, hospitals etc., and MFB is providing services to all these establishments. In terms of the expected response time, MFB has been providing a sufficient number of fire stations, manpower and equipment.



**Iqbal Singh Chahal, IAS**  
Commissioner  
Municipal Corporation of Greater Mumbai

MFB has a distinction of serving this city for a long tenure and it has acquired sufficient experience for the scientific valuation of manpower on the basis of population density, response time and fire risk analysis. The infrastructure for the MFB has evolved and efforts have been made to achieve the proper fire safety coverage for everybody.

The requirement for regular fire stations is difficult to provide in a land-starved city, so the Municipal Corporation of Greater Mumbai (MCGM) and MFB have recently introduced the innovative idea of mini fire stations. MFB is also capacity building under the Program for Enhancement of Emergency Response (PEER); more fire stations, manpower; technology, equipment, public participation, NGO participation, etc. There is also emphasis on the replacement of old fire appliances and procurement of highly sophisticated equipment.

**With COVID-19 what are the problems faced by the MFB while discharging its duties in the 'new normal'?**

Though there is a continuous danger of COVID, MFB is always at the forefront of assisting Mumbaikars despite the threat perception to their lives. The pandemic has slowed down the day-to-day activities, which has reduced the incidence of fire. On the other hand, other causes have increased, which MFB has to manage. In addition to dousing fires, MFB has also been carrying out sanitizing activities to help combat the pandemic.

**What is your vision for MFB? Are there any new developments or plans on the anvil?**

Development of the fire services is a continuous process based on the infrastructure development of the city, population density, and other aspects. To keep pace with the rapid urbanization and growth of this city, greater number of fire stations, additional manpower and vehicles with new technology will also be augmented in the near future. Apart from

that, we are also concentrating on the community participation aspect, by running a Fire Volunteers Program with the help of some NGOs.

**What advice would you like to give the citizens of Mumbai in particular where fire safety is concerned?**

Mumbai being an island city makes vertical growth essential, but Mumbaikars need to ensure that fire safety awareness and facilities also rise in tandem. While the MFB is constantly evolving to manage the new challenges that arise due to the growth of high rises, it is equally important for the occupants of these buildings to ensure that they too follow basic precautions and avoid creating fire hazards.

Fire safety is everybody's responsibility and the same is mandated in the Maharashtra Fire Prevention and Life Safety Measures Act, 2006. All citizens should ensure fire safety in their premises at all times, to avoid fire incidences and consequent loss of life and property. From timely changing of wiring, making sure that there are no sparks or loose connections and being especially careful while bursting fire crackers, there are many steps that can be taken by individuals and institutions. MFB is always ready to conduct training sessions at malls, schools, office buildings on fire safety as well as mock drills.

Mumbai has a vast population belonging to a cross-section of economic strata of society. It is important for citizens from each and every segment to realise the need for giving greater attention to aspects like fire safety.

Therefore, we have a number of campaigns that are targeted at different segments so as to get the message across in a proper manner. Mumbaikars need to follow the adage 'prevention is better than cure' when it comes to fire hazards and also be vigilant about reporting fires as well as cooperating with MFB to facilitate the process of putting out fires.

## 'Technologically advanced equipment enhances and facilitates fire safety'

**How has the scope of Mumbai Fire Brigade's duties extended?**

Though Mumbai Fire Brigade (MFB) is mandated to discharge the obligatory duty of saving life and property, the duty roster is much beyond this scope. Presently it is rendering services in case of building collapse, rail/ road accidents, air craft accidents, tree collapse, drowning cases, bird and animal rescue, chemical spillages and disasters, oil spillages etc. Government of India, Ministry of Home Affairs has also notified all fire services as 'Fire and Emergency Services.' MFB is also entrusted with fire prevention and mitigation via public education and awareness.

**In what manner does it deal with new-age challenges?**

MFB is always a front runner in acquiring state-of-the-art vehicles and equipment for fire-fighting and rescue operations. These are at par with any fire service of developed countries. The growth of this city has posed immense challenges for the MFB with high rises, malls, underground rail lines etc. It is meeting them through technologically advanced equipment with 20 special appliances, including Aerial Ladder Platforms, Hydraulic Ladder Platforms, and Turn Table Ladders reaching 90 meters (30 floors). It has recently acquired the HAZMAT vehicle to deal with chemical disasters and



**Ashwini Bhide, IAS**  
Addl. Municipal Commissioner  
Municipal Corporation of Greater Mumbai

a Fire Robot for situations endangering the lives of firemen, such as recent major fire at City Centre Mall and Dreams Mall, where it was used successfully.

Slums are an integral part of Mumbai, constructed from highly combustible material and closely knit making it impossible for the fire brigade vehicle to access. Similarly, high rises need special skill and equipment to deal with fire emergencies. MFB has recently acquired a multi-articulated boom vehicle of 55 metres height to fight fires in inaccessible areas and high rises. It is procuring high

**TO MITIGATE THE PROBLEM OF TRAFFIC CONGESTION DELAYS, MUMBAI FIRE BRIGADE HAS SET UP 18 MINI FIRE STATIONS WITH QUICK RESPONSE VEHICLES, WHICH HAS CONSIDERABLY IMPROVED RESPONSE TIME. FURTHER IT IS INTRODUCING FIRE BIKES TO TACKLE FIRES AT THEIR INCIPIENT STAGE.**

rise building fire fighting vehicle, combined firefighting-cum-rescue vehicles, too.

Ministry of Home Affairs, Government of India, has issued guidelines of 7.5 minutes response time for urban areas, which is a challenge in Mumbai due to heavy traffic congestion. To mitigate this, MFB has set up 18 Mini Fire Stations with Quick Response Vehicles, which has improved the response time. It is introducing fire bikes to tackle fires at their incipient stage.

**How can Mumbaikars facilitate fire safety in the city?**

It is everyone's responsibility to ensure fire safety always. As per Maharashtra Fire Prevention and

Life Safety Measures Act 2006, it is the responsibility of owner/ occupier to ensure fire safety in the premises. Fire safety equipment in the building should always be maintained through government approved licenced agencies and certificates to be submitted to the fire brigade twice in a year. Periodic evacuation is very important to save lives. Violation of fire safety measures will attract serious penalties such as disconnection of electricity and water supply or even sealing of the building.

**How can fire safety checks be done on a regular basis?**

MCGM has started a ward-level compliance cell to ensure fire safety in various buildings, trades, businesses etc. They are regularly checking these places and initiating action in case of non-compliance. Fire Officers have been undertaking regular inspection of various buildings which includes high rise buildings, malls, cinema theatres, hospitals, schools etc. on regular basis to ensure fire safety compliance. Considering the size of this mega city and the mammoth task of ensuring fire safety always, help is being sought from the various NGO's for sensitizing the people about the importance of fire safety. MFB is actively working with various organizations such as Project Mumbai, Fire Safety Association of India etc. for various public education and awareness programs.

## 'RESPONSE TIME IS A KEY PARAMETER'

**Looking at the high level of congestion in the city, how does Mumbai Fire Brigade's role assume greater importance?**

Fire safety is an important parameter of urban planning. The Constitution of India also envisages the right to live in safe manner, as does the Mumbai Municipal Corporation Act 1888, where saving the life and property of citizen is an obligatory duty of MCGM. Mumbai Fire Brigade (MFB) is not only engaged in extinguishing fires but also has pivotal role in public education in fire safety, mitigation and prevention policies and strict enforcement of Maharashtra Fire Prevention and Life Safety Measures Act 2006.

Mumbai has the maximum number and the tallest high rises in our country. Hence the National Building Code 2016, DCPR 2034 defines the requirement of in-built fire-fighting system to be provided in the every high rise building at the time of construction. Apart from this, MFB undertakes regular inspections of high rise buildings to ensure fire safety from time to time including conducting mock drills and evacuation drills.

**How does MCGM ensure fire safety in the design of new buildings and systems to control fire in emergencies?**

Every high rise building in Mumbai



**Ramesh Pawar**  
Joint Municipal Commissioner (Improvement)  
Municipal Corporation of Greater Mumbai

city having height of 32 metres and above needs mandatory compliance from fire brigade as per the provisions of NBC 2016 and DCPR 2034. MFB issues the fire safety requirements to be provided in the building (active and passive) at the planning stage. After compliance of building, again inspection is carried out to issue final compliance. This includes fire alarm, detection and fire hydrant system in the building.

**What are the initiatives being taken by Mumbai Fire Brigade to enhance fire safety awareness?**

It is believed that if the fire is tackled at its incipient stage will reduce the loss of life and property to great extent. Working on this philosophy, MFB has undertaken the program of 'Fire Volunteer' and under this program more than 6000 citizens have been trained in basic fire-fighting. These Fire Volunteers are from the community and responding as a first responder in case of an emergency till fire brigade arrives at the scene of incident. This initiative has yielded very good results showing down trend of loss of life and property. Further, Mumbai Fire Brigade is jointly working with an NGO called Project Mumbai wherein the citizens are further trained in basic fire-fighting and rescue operations. Participation of citizens is very important to mitigate loss of life and property from fire in this mega city.



The Mumbai Fire Brigade has a glorious history of over 240 years behind it. The first fire-fighting in (then Bombay) began in 1777. Local residents were drafted to do this job and were paid a token amount. The Bombay Fire Brigade was initially a function of the police department. It began functioning in 1855. For this purpose, a regular fire service began under control of the Commissioner of Police. As no motorized vehicles existed at the time, fire fighters used to travel in horse-drawn carriages. The Fire Brigade acquired its first motorized fire engine in 1907. In the same year, the Bombay Salvage Corporation

## 'A glorious trek and glittering record'

**HEMANT PARAB, Chief Fire Officer, Mumbai Fire Brigade, presents perspectives on the progress of this truly world-class institution over the centuries, as well as noteworthy incidents**

was established, making it responsible for fire protection and salvage operations. Fire alarms were installed on major streets in 1913. The Fire Brigade was completely motorised in 1920, bidding goodbye to horse-drawn steam engines.

The next major development came in 1920 when the Bom-

bay Fire Brigade launched an ambulance service. For this, it began using six donated ambulances. After Independence, the Fire Brigade was placed in local hands and in 1948; M.G. Pradhan was appointed Chief Fire Officer. The role and jurisdiction of the Mumbai Fire Brigade are defined by the Mahar-

ashtra Fire Prevention and Life Safety Measures Act, 2006.

### Salute to Bravery

Every year, 14 April is observed as "National Fire Services Day" to salute the unmatched bravery shown and sacrifice made by the 66 men of Mumbai Fire Brigade. It was on this day that around 4.40

pm in 1944, an enormous explosion shook Mumbai. Soon, it was found out that the explosions in a vessel, S.S. PortStikins, berthed at Victoria Docks along Mumbai's coast, had caught fire. The ship held nearly 1200 tons of explosives, cotton bales and oil drums.

The scope of the destruction was unprecedented. While the exact number of dead is still not known, the 66 brave firemen will be remembered for ever. The people of Mumbai have erected a Memorial Column at the Fire Brigade Headquarters at Byculla. The Government of India has declared 14 April as "Fire Services Day. Also, "Fire Safety Week" is held from April 14 to 21 every year.



Hemant Parab, Chief Fire Officer, Mumbai Fire Brigade was felicitated by Mumbai Mayor Kishori Pednekar on receiving President's Gallantry Medal

### MODERNISATION AND TECHNOLOGY



A well-equipped Hazmat vehicle was imported from Slovenia by the Mumbai Fire Brigade to keep tackle chemical disasters

Mumbai Fire Brigade has started using modern rear mounted automatic pump systems on fire appliances. New generation Auto Transmission Fire Engine, Turn Table Ladders, Aerial Ladder Platforms, Hydraulic Platforms, Rescue Vans, Hazmat Vehicle, Flexible Water Tower, Mobile Water Transport Vehicle, etc.

The department also utilises 3G wireless system for Static & Mobile Communications and Radio System. These are apart from setting up Command and Control Systems in the Control Rooms for efficient vigilance and quick response to the emergency calls.

Chemical Suits from Hazmat Van

### ADVANCED EQUIPMENT

The department is using some of the most advanced equipment like thermal imaging camera, victim location camera, radiation and multiple gas detectors, chemical suits with ventilation systems, sealing and plugging equipment, decontamination equipment, various hydraulic, pneumatic, battery operated and mechanical gears, spark proof tools, rope and rescue equipment, most advanced light weight breathing apparatus sets, fire robot for fire-fighting in inaccessible places, high temperature zones, etc. The men are provided with high grade personal protective equipment, self-luminated helmets, hybrid gumboots, etc. MFB has also procured new Task Force Tip or TFT Nozzles for water efficient fire-fighting.

Advanced technology plays a vital role in public safety measures. For effective implementation of these highly sophisticated equipment at grass root level by every fireman, each of them undergo rigorous and thorough training.



Newly included 55 meters Flexible Water Tower Vehicle for effective fire-fighting in inaccessible areas

### SPORTING ACCOMPLISHMENTS



For the first time, Mumbai Fire Brigade participated in World Firefighters Games in Chungju, South Korea. MFB's contingent was part of the 13th edition of the event.

A contingent of 13 fire officers and staff brought glory by winning three gold, three silver and one bronze medal.

Team leader Deepak Ghosh (seen above) also bagged the prestigious title of "Toughest Fire Fighter Alive" after successfully completing a tough fire drill that saw over 6,000 fire fighters from 64 countries taking part in the event. In all, MFB won eight honours.



Fireman Pranit Shelke, who works in the Control Room and resides at Byculla Fire Station, reached the summit of Mount Friendship, Himachal Pradesh and hoisted the Mumbai Fire Brigade flag proudly at a height of 17253 feet; a truly golden moment for Mumbai Fire Brigade.

At the 13th edition of the World Firefighters Games, Mumbai Fire Brigade fireman Rohit Bharat Chavan's participation in the javelin throw event was also lauded. He impressed one and all with his prowess in the sport, which has recently gained immense popularity across India.



### AUGMENTATION AND EXPANSION

#### Regional Command Centres

For effective administrative and operational purposes, Mumbai is divided into six regional command centres.



Mumbai Fire Brigade has 35 fire stations; 15 in the city and 20 in the suburban region. Fire stations in South and Central Mumbai are situated in close proximity from each other, required help is quite easily available whereas in suburban region fire stations are located at a distance hence an effective response plan is in place to tackle the challenge. Traffic jams also add on to the problem. Therefore, MFB has come up with the concept of Beat/Mini Fire Stations to reduce the

response time in case of any emergency. Accordingly at places owned by Municipal Corporation or by Public Private Participation, MFB has started a total of 18 Beat/Mini Fire Stations. With the increase in strength of fire appliances in the department, they are expanding the manpower as well. During the last recruitment drive, 774 firemen were inducted. Prior to that two more batches of firemen each, of around 300 candidates, were inducted in the department, in last five years.

### TRAINING AND UPSKILLING

Mumbai Fire Brigade has three training facilities. Newly recruited probationary firemen or officers are provided with six months rigorous training at these facilities. Promotional classes of the existing employees such as three months Leading Fireman Class, 45 days Driver Operators Training and 30 days Sub Officer Course apart from that Refresher Courses for Officers and Staff are conducted from time-to-time. Refresher Training in Flood



Rescue, Rope Rescue and Urban Search & Rescue are also conducted.

MFB has a state-of-the-art BA Gallery with all necessary amenities, where the men practice in recreated real life situations by donning BA sets that includes heat and smoke artificially created. MFB provides six days, 12 days and 20 days of basic fire fighting training courses to the external agencies such as staff members of the hotels, hospitals, colleges, etc.

### MUMBAI FIRE BRIGADE - OVERALL STRENGTH

Fire Stations	35	Water Transportation Vehicles	03	Mobile Diesel Van	02
Mini Fire Stations	18	HAZMAT Vehicle	01	Delivery Van	01
Fire Vehicles Total	262	High Pressure pump cum Lighting Van	04	Breakdown Van	01
Fire Engines	63	Rescue Van	05	Fire Robot	01
Jumbo Tankers	28	Breathing Apparatus Van	06	Cars	11
Water Tankers	04	Control Post	03	Jeeps	71
Ambulances	02	Motor Lorry	02	Personnel Carrier	03
Aerial Ladder platform	10	Bus	02	Mini Water Tender	02
Turn Table Ladder	06	Education Van	01	Quick response Vehicle	17
Hydraulic Platform	04			Mini Fire Tender	03
Foam Tender	06				

### EQUIPMENTS OF FIRE BRIGADE

Sr. No.	Description	Qty.
1	Light Portable Pumps	32 nos.
2	High Pressure Pumps	05 nos.
3	Breathing Apparatus Sets	495 sets
4	Hydraulic Rescue Tools	50 Sets
5	Search Cameras	05 nos.
6	Thermal Imaging Cameras	20 nos.
7	Flood Rescue Equipments	06 Sets
8	Jet Skies	07 nos.
9	Chain Saw Machines	50
10	Concrete Breaking Machines	35

### MUMBAI FIRE BRIGADE Officers & Staff Total

Sr. No.	Designation	Post Occupied	Sr. No.	Designation	Post Occupied
1	C.F.O.	1	10	Leading Firemen	218
2	Dy. C.F.O.	9	11	Driver Operator	523
3	Dy. C.O. (T).	1	12	Firemen	1473
4	D.F.O.	11	13	Fire Women	117
5	A.D.F.O.	25	14	Workshop Staff	54
6	Sr. S. O.	36	15	Workshop Engineering Staff	08
7	S. O.	61	16	Wireless Workshop Staff	02
8	A.S.O.	28			
9	Sub Officer	59	<b>Total</b>	<b>2489</b>	

### AWARENESS AND ENGAGEMENT

Mumbai Fire Brigade has three training set-ups at Byculla, Wadala and Borivali Regional Command Centers, where they have been conducting Fire Volunteers Program since 2016. So far more than



6,000 citizens have been imparted the required training, and have received

an ID card, cap, badge and a certificate. These volunteers can help MFB during a crunch situation, may it be at their residence or work place. The officers are also conducting basic fire safety and fire-fighting training at residential complexes, slums, offices, commercial complexes, hospitals, schools, etc. on a weekly basis by way of mock drills, evacuation drills, and lectures on basic fire safety in association with the LP gas supplying agencies.

## Check equipment regularly!

As fire fighters we demand more out of our equipment and gear than almost any other profession, because if it fails, it can cost more than just a money. How, then, can we ensure that our equipment doesn't break down when we need it the most? The answer is simple - check your equipment regularly. This seems like no work, but when you consider the realities of the job, it is not such an easy task. Consider keeping track of daily and weekly fire trucks check, inventory checks, PPE gears, SCBA sets, hoses and pump schedules, preventive maintenance and annual test, etc. Now, combine that with all the other responsibilities fire-fighters have and it's easy to see how inspecting your equipment could fall by the wayside.

While missing a check every now and then may not be the end of the world, major issues can arise if they go unchecked too long. With fire fighters, proper maintenance can be the difference between life and death. Here are four tips to keep your equipment up to the task:

**1. Use it:** Start and run your equipment regularly according to the manufacturer or SOPs laid down by the fire brigade. Check the engine, fluid levels, lights, sirens and tyres of your vehicle regularly. The same also applies to various tools and gears used less often. Even brand new trucks and tools will not work properly if unused too long.

**2. Schedule inspections:** You may already have some system in place; it may be a log book, checklist or software system. Make sure that the checks are thorough and include everything from daily inspections to those that take place every few years. All checks should comply with manufacturer standards and/or SOP norms. Services are

available to do this professionally and on time as demanded by the fire service.

**3. Stay up to date with equipment training:** Everyone in your fire department should know how to operate the equipment, which includes fire truck, automatic ladder, rescue tools or circular saw, etc. But this is not always easy when you are dealing with equipment and crews that may constantly change. One solution is to film more complex inspections while they are done, so that fire-fighters can reference them during their checks. You can take care of this in-house by using your mobile camera without the aid of any external agency.

**4. Handle issues early:** Good inspections don't mean taking your engine in every year for maintenance. They require checking your apparatus, equipment and inventory consistently so that you can take care of small issues before they become more costly. While this seems tedious, it can save time and money as well as save lives. As the old adage goes 'An ounce of prevention is worth a pound of cure.' This certainly rings true for fire rescue equipment.



**Rajendra A. Chaudhary**  
Deputy Chief Officer (Technical),  
Mumbai Fire Brigade



Prabhat Rahangdale, Deputy Municipal Commissioner and former Chief Fire Officer, Mumbai Fire Brigade was felicitated by Mayor Kishori Pednekar for receiving President's Gallantry Medal



As part of the strategy to incorporate technologically advanced equipment, Mumbai Fire Brigade has a special robot that assists in reaching places, which cannot be accessed by its personnel due to the intensity of fire. It has effectively used to combat such high-intensity fires during many situations



Mumbai Fire Brigade is inducting Fire Bikes to quickly reach sites where a fire has occurred and start using the facilities available until the big vehicles reach. One Fire Bike will be stationed at every ward level Fire Station across the city



A 90-metre ladder enables combating fires at a height



A modern water transportation vehicle has been inducted



The Mumbai Fire Brigade reacted swiftly to contain the damage and avert a disaster, when there was a LPG Gas leak at Kasturba Hospital



# FIRE SAFE MUMBAI



## 'Fire-fighters are the true heroes'

Leveraging technology, investing in modern equipment, regularly taking steps to induct and train additional manpower and conducting fire drills are all essential

Fire safety and its prevention are vital issues that impact lives. Known to all of us as one of the four elements of nature, fire has multiple drivers or triggers. Therefore, the science of managing it needs to incorporate specifically prescribed approaches for dealing with the cause and effect of each type of fire as well.



**D K Shami**  
Fire Advisor,  
Ministry of Home,  
Government of India

The strategy and equipment for dealing with combustible waste materials lying in a building compound, which have accidentally caught fire due to carelessness while playing with firecrackers, will need to be quite different as compared to say an electrical fire caused by an illegal wire connection from a meter box in the vicinity.

major imperatives that has to be given priority. Allocating greater resources for fire-fighting and aggressively conducting campaigns for increasing awareness among citizens holds the key to facilitating these.

It is rightly said that prevention is better than cure, which is where the public participation aspect comes in. However, the cure has also to be formulated and it must be dynamic and constantly evolving in nature, addressing numerous concerns to remain effective in an ever-changing environment.

Ensuring and enabling a comprehensive, organised and systematic approach to fire-fighting is one of the

Leveraging technology, investing in modern equipment, regularly taking steps to induct and train additional manpower, conducting fire drills in various forums from schools to office buildings and housing societies; these are all essential components that need to be available and implemented in a combined, comprehensive manner.

**THESE DAYS FIRE-FIGHTERS NOT ONLY HAVE TO COPE WITH FIRE-RELATED HAZARDS BUT THEY ALSO RISK BEING INFECTED BY THE CORONAVIRUS WHILE MAKING EFFORTS TO SAVE LIVES.**

taking place in tandem, the spectrum of problems that now need to be dealt with relating to fire safety and fire-fighting, has risen substantially. During the past two years, these aspects have gained even more significance in the 'new normal' thrust upon us as a result of the COVID-19 pandemic.

These days fire-fighters not only have to cope with fire-related hazards but they also risk being infected by the Coronavirus while making efforts to save lives. On many occasions, there is no time to wear protective gear or limited availability because one is dealing with an unexpected crisis. There are situations where the nature and extent of fire having spread doesn't make donning PPE suits feasible.

Operating under such restrictions, these fire-fighters who put their lives on the line, day after day, are the true heroes. Those who lay down their lives while performing their duty, in order to save others, are martyrs and deserve to be declared as such. The public perception towards fire safety and their conduct towards fire fighters also needs to be more sensitive and considerate given the life-threatening situations they encounter and engage with on daily basis.

## 'Fire compliances are very important'

The requirements specified are scrutinised in detail while studying building proposals and plans for each project are examined for ways to fight fires

There was a stage when the basic approval for building proposals used to take a year as there were a hundred processes involved. During the year 2015, we took a conscious decision to resolve this issue and shifted the entire process for approving the building proposals to online mode.



**Vinod P Chithore**  
Chief Engineer  
(Development Plan),  
Municipal Corporation of  
Greater Mumbai

The software was there, it had to be enabled and activated. We made efforts towards making the process even easier as we proceeded.

Previously, the No Objection Certificates (NOCs) from each and every department that is related to new building proposals had to be sought from them individually; now all of these have been integrated.

The NOCs related to the fire safety aspect of new buildings are very important and their requirements are scrutinised in detail. Each building's plans are also examined for possible ways to fight active and passive fires.

per the norms specified for the same. Now, even the RTI applications have reduced and even in response to those, I convey that all the details are available online. I don't think any other department is as transparent as building proposals.

Any developer who has submitted a building proposal can track the status online from any location in any part of the world and get a clear idea about the same.

**THE ENTIRE PROCESS FROM SUBMISSION OF THE BUILDING PROPOSALS TO THEIR APPROVAL IS COMPLETELY ONLINE AND IN THE PUBLIC DOMAIN.**

Similarly, the system also enables me to track what each officer from my department is doing from my office.

While we do conduct physical inspections of new building construction sites to confirm how much work has been completed, online verification is also possible. This is done by going through the images and videos that have to be posted by the developer at each stage as per the norms specified for the same. Now, even the RTI applications have reduced and even in response to those, I convey that all the details are available online.

Earlier India's Ease of Doing Business (EODB) ranking for construction permits was 183, now it is 27, which is a great achievement. This year we were expecting our ranking to

## 'Fire safety, prevention are given priority'

Given the growth of high rises in Mumbai, do you feel there needs to be a greater emphasis on fire safety?

Vertical growth is preordained in a dense global city like Mumbai. I believe that there should be proactive and continuous measures to improve fire safety without waiting for calamities to strike.

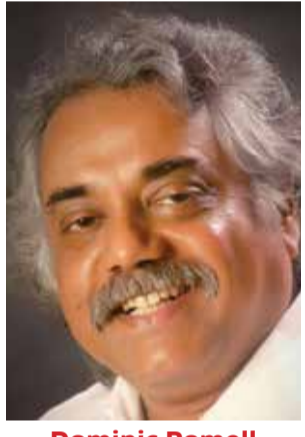
How are leading developers, especially MCHI-CREDAI members ensuring fire safety in the design of new buildings as well as systems to prevent and control fire in case of emergency?

Fire safety and fire prevention are given priority by members on their respective projects. During the construction phase, the focus is on setting up adequate firefighting and prevention infrastructure and educating site staff and labour by conducting fire drills. Fire equipment provided in the buildings for use

during operational phase are stringently as per the recommendation of the fire officers.

With people adopting work from home during the pandemic and using greater appliances simultaneously, what are the additional hazards that need to be managed from a fire prevention perspective?

A developer's role is limited to the construction phase and till handing over, post which citizen awareness is the key to effective fire prevention.



**Dominic Romell**  
Senior Vice President  
CREDAI-MCHI

tion. Mindful maintenance of alarm systems, sprinklers etc in residences, offices and other areas by end user is extremely crucial.

Looking at the 'new normal' and COVID-19 safety precautions/restrictions, which are the aspects like occupant awareness, safety drills, that need to be prioritised for fire prevention in all types of high-rise structures?

Along with safety drills and timely maintenance of firefighting equipment, it is also necessary to use fire resistant and

non-combustible material. Escape routes should be kept free and well lit all the time. Random checks should be carried out by trained professionals to ensure compliance.

How would you describe the importance of the role essayed by fire department institutions like the Mumbai Fire Brigade in such situations?

Mumbai Fire Brigade is doing an outstanding job in combating the fires in the city not only in the high rise buildings but also in the unorganised slum areas. Guidelines and regulations are in place and mitigation measures are enforced right at the planning stage. However it is extremely necessary to modernise the equipment used by our firefighters. Fire-fighting and rescue equipment provided should be at par with any other western countries. It is necessary improve and update continuously.

Fire safety is a joint responsibility  
... Continued from Page 1

added that in the next year, there will be six firefighting-cum-rescue vehicles that will be inducted. These will have a fire dousing feature and mechanical ladder on a single-vehicle.

Soon, 24 bikes will also get commissioned and will be stationed at each of the wards. It will help in navigating narrow lanes where the fire tenders can't get immediate access.

These fire bikes would have a water pump, a fire extinguisher, and seats for 1-2 fire personnel so that service taps can start the firefighting activity much before the fire tenders reach the spot and contain the fire.

## 'Fire Safety Risk Audit is an effective tool'

The electronics and electricals sector forms an integral part of our lives and fire safety is an essential aspect. Unfortunately, data shows that 'electrical short circuit' has been a major cause of concern and has resulted into fire related incidences. The recent changes in the governing regulatory and technical standards for insulated electrical cable and cords used in homes and offices and electrification are meant to ensure better quality and higher flame withstand parameters of these wires and cables. Despite the fact that regulatory standards are in place, it is felt that the compliance to the standards should be tightened.

Overloading the power consumption with multiple appliances running on a single plug point needs to be avoided at all costs. Using two-pin extension cords for three pin plug appliances is another commonly seen hazard. Never use an appliance with a worn or frayed cord which can send heat onto combustible surfaces like floors, curtains, and rugs that can start a fire. Removing the grounding plug from a cord so it can be used in a two-prong electrical outlet can also cause a fire. Ensure that your protection devices are installed in your electrical distribution board. It is advisable to get additional plug points properly installed by a reputed and trained electrician as per the number of gadgets in use. Always insist on switches and wires have the ISI certification. Do not try to save costs by using substandard wiring or lower capacity plugs without proper earthing.

Fire Safety Risk Audit is found to be an effective tool for assessing fire safety standards of an organization or an occupancy. It is aimed to assess the building for compliance with the National Building Code of India, relevant Indian Standards and the legislations enacted by state governments and local bodies. On fire prevention, fire protection and life safety measures. A major focus area for IEEMA is electrical fire safety across the entire spectrum of electrical products being used in the residential, commercial and industrial segments. The recent increase in fire incidents have made this issue even more significant. "We are working in this direction by creating awareness among our industry and consumers as well. Consumer awareness will enable quicker adaption of safe practices. Fire safety and prevention are top priorities and institutions like the Mumbai Fire Brigade play a key role in terms of creating awareness, conducting fire drills, etc. In situations where the fire cannot be controlled by normal fire extinguishers, they have the experience, expertise, and latest equipment to defuse the crisis. We applaud these real-life heroes who risk their lives to save those of others," says Vipul Ray.



**Vipul Ray**  
MD - ELMEX  
Controls Pvt Ltd,  
President, IEEMA

## Seminars play a key role

We have been organising seminars on the regulatory aspects connected with fire safety in new buildings for our members on a regular basis. The aim is to provide a focused platform where they can gain insights and develop a better understanding of the norms.



**Er. Manojkumar Dubal**  
Past President  
PEATA (I)

We also interact with them regularly; when our members seek more information or clarity, we share their queries with the Mumbai Fire Brigade Chief Fire Officer, and his team.

During the past year-and-a-half, because of the pandemic, we have not been able to conduct these seminars. However, we leveraged technology and organised a webinar for our members.

## Avighna House: The benchmark in compliance & safety

As much as a super-premium office building is about architecture, design and luxury features, it is also about compliance, sustainability and safety. Avighna House, the marquee commercial project of Avighna Group at Worli, epitomises the commitment to safety - with fire-safety being an integral element. "From best-in-class fire fighting systems and sensors at all strategic spots, to world-class equipment like smoke detectors and alarm systems, Avighna House is equipped with state-of-art apparatus

befitting a Grade-A office building," says Nishant Agarwal, Managing Director, Avighna Group, adding that the safety features of the building not only conform with the prescribed codes but also incorporate technology that sets the benchmark in compliance and safety. The 18 storey architectural marvel with an art-deco facade and one-office-per-floor layout, is emerging as Central Mumbai's choicest office block.

## Rohan Lifescapes: Always giving priority to fire safety

According to a latest survey, fire safety is the second most important aspect being considered while evaluating a property.

Developers need to give due consideration right from the initial planning and design, material selection to actual construction of the structure itself.

Industry veteran Harresh Mehta, CMD, Rohan Lifescapes, says, "At Rohan Lifescapes we take a holistic view and a very comprehensive approach to fire safety while designing any residential or commercial project."



He points out that "The real estate industry needs to evolve with the changing priorities of the consumers and bring the fire safety aspects of the project to the forefront while educating the consumer at the same time. That helps the buyer to make an informed purchase decision."

## "We follow the best-in-class fire safety norms"

In a city that's growing vertically as rapidly as ours, it is utmost critical for developers to diligently follow all the fire safety norms and to ensure that all stakeholders involved also take adequate fire safety measures. At Oberoi Realty, we follow the best-in-class fire safety norms across all our projects and make sure that our contractors and customers adhere to the same. Keeping Mumbai fire-safe is a tremendous responsibility and we would like to express our gratitude and provide our support to our Hon. Municipal Commissioners, MCGM and the Chief Fire Officer and his team for their unrelenting work towards the same," says Rajendra Chandorkar, EVP Architecture & Design.

Our Hon. Municipal Commissioners, MCGM and the Chief Fire Officer and his team for their unrelenting work towards the same," says Rajendra Chandorkar, EVP Architecture & Design.



## "For us, Fire Safety is an Investment and not cost"

Fire incidents do not come with an address. This necessitates that the highest level of precaution is taken to avoid any incident of fire in the first place.

"We strongly believe that the monies spent on Fire Safety as an investment and not a cost. This thinking leads us to have the best available Fire Safety products installed in each of our projects. We are in regular contact with the Mumbai Fire



Brigade to seek their assistance towards following the Fire Safety norms laid down by them. We congratulate Mumbai Fire Brigade for their various initiatives towards creating awareness about fire safety among the stakeholders and coming out with an apt slogan 'Help us to Help you,' says Pankaj Goshar.

## Safety, Health & Sustainability

The Runwal Group, doesn't just build quality homes but ensures complete safety as well. Safety, health and environment protection is a part of their core philosophy. Every aspect of fire safety is well thought through at the concept stage itself by a cross functional team including fire safety experts. Runwal Group exceeds fire safety protection and control measures as per NBC, as per requirements

of national and international standards and stipulated norms by fire safety department.

The Runwal Group also involves its customers during emergency fire drills, orientation of fire protection systems like extinguishers, fire pump room, public address system, fire alarm, sprinklers, emergency assembly points at conspicuous locations, fire lifts and SCABA and lowering device for speedy escape.



## Nirilon Knowledge Park: Safety before all else

When it comes to building safety, fire risk takes the center stage. Prevention is always better than cure and at Nirilon Knowledge Park (NKP) we make it our business to ensure and practice this. NKP has always ensured the highest design parameters and specifications for fire safety from the project planning stage itself. This has always been the highest of priorities at NKP. Empowered with state-of-art fire detection and

fire suppressant systems, NKP is supported by a full-fledged fire safety and response team with trained and experienced fire officers monitoring the campus round the clock. NKP conducts regular building evacuation drills and Fire & Rescue demonstrations, with able support from the Mumbai Fire Brigade. At NKP, safety comes before everything else, and no compromise in this respect is ever even contemplated.



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