

GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

MUNICIPAL ADMINISTRATION & URBAN DEVELOPMENT DEPARTMENT- Report of High Power Committee constituted vide G.O.Ms No.45 MA dated 04-02-2006 on fire protection and fire safety measures required to be taken in existing buildings – Recommendation Accepted – Orders – Issued

MUNICIPAL ADMINISTRATION & URBAN DEVELOPMENT DEPARTMENT (M1) DEPARTMENT

G.O.Ms.No.154

Date: 13-03-2007.

:Read the Following:-

- 1.G.O.Ms.No 45 MA & UD Dept (M1) Dept. dated 04.02.2006.
- 2.Report submitted by the High Power Committee in December 2006.
- 3.High Court Orders in W.P. P.No. 26365/05, dated 05.01.2007.

ORDER:

In the G.O. 1st read above, in pursuance of the orders passed by the Hon'ble High Court in W.P.No.26365 of 2005 Government have constituted a High Power Committee under the Chairmanship of Secretary Municipal Administration and Urban Development Department with Director General Fire Services Department, Vice Chairman, Hyderabad Urban Development Authority, Commissioner Municipal Construction and other experts as members to go into all aspects of buildings constructed (multistoried and otherwise) without obtaining NOC wherever required and in violation of various statutory provisions and make comprehensive suggestions for taking remedial steps.

2. In the reference 2nd read above, the High Power Committee has submitted their report. The report submitted by the High Power Committee has been examined in detail keeping in view the orders of the Hon'ble High Court issued in the reference 3rd read above. After careful consideration of the matter, Government have accepted the recommendations of the High Power Committee in 'toto' The recommendations of the High Power Committee are annexed to this G.O.

3. The Vice Chairman, Hyderabad Urban Development Authority, Commissioner Municipal Corporation of Hyderabad, Managing Director, HMWSSB, Managing Director, AP TRANSCO. Director General, Fire Services Department, are requested to take immediate action for implementation of the recommendations given in the annexure of this G.O and requested to initiate necessary proposals for amending the relevant Laws wherever required.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

S.P.SINGH
PRINCIPAL SECRETARY TO GOVERNMENT

To
The Vice Chairman, Hyderabad Urban Development Authority, Hyderabad.
The Commissioner, Municipal Corporation of Hyderabad.
The Director General, Fire Services Department, Hyderabad.
The Managing Director, A.P, TRANSCO, Hyderabad.
The Managing Director, HMWSSB, Hyderabad.

Copy to:

The Law Department/The Home Department./The Energy Department.

Private Secretary to Special Secretary to Chief Minister.

Private Secretary M (MA)

Sf/sc

FORWARDED/BY ORDER

Sd/-
SECTION OFFICER

Annexure to G. O. Ms. No. 154, M A & U D (M) Department, Dated 13-03-2007.

RECOMMENDATIONS OF THE HIGH POWER COMMITTEE CONSTITUTED VIDE G. O. MS. NO. 45, M. A, DATED 04-02-2006 ON FIRE SAFETY MEASURES REQUIRED TO BE TAKEN IN EXISTING BUILDINGS.

The High Power Committee after examining the suggestions given by the various Sub-Committees, interactions with the various stake-holders, and the suggestions of the Fire Department recommend the following:

A) REMEDIAL MEASURES FOR EXISTING BUILDINGS TO ENSURE REASONABLE FIRE SAFETY:

The High Power Committee has gone thorough the observations and recommendations given by various sub-committees and after detailed deliberations have decided to recommend following mandatory fire safety measures in existing buildings for different occupancies and categories i.e.,

- i) All buildings of 15 metres and above in height.*
 - ii) Non Residential buildings of 500 Sq. metres and above in area irrespective of height.*
 - iii) Assembly and Educational buildings of 6 metres and above in height.*
- *Advice of Fire Engineer may be obtained especially in case of High Rise buildings and premises involving large public congregation.*
- *Items marked as “*” may not be insisted in case Apartment Complexes of height abouve 15 Meters and below 18 Meters, schools and other buildings where the floor area on each floor is less than 500 Sq. M and height is below 15 M.*

Fire safety Measure	Recommendations
1.	2.
I) Means of Access	<p>1) Provide one entry and one exit with a width of minimum 4.50 meters with head clearance of 5.00 meters by removing cables, wires, arches, etc.,(Refer clause 3.4.6.1 (d), Part 4, National Building Code of India) to ensure access to the Fire Vehicles.</p> <p>2) Provide facility for external access by Firemen to upper floors through openable, windows in closed balconies and panels in glass facade, etc., for facilitating Rescue and Fire Fighting purposes.</p>
II) Open Space	<p>*1) Providing 6 Meters Leveled, Metalled, access space (open to sky) by removing obstructions like Fixtures, Structures, Parking, Booths, Cabins, Generators, etc., to ensure movement of the Fire Vehicles around the building.</p> <p>2) In case the above is impossible in the existing premises, provide removable partition in place of masonry compound wall for enabling joint access space of 6 meters all round the building with a turning radius of 9 meters at corners (Refer NBC Part 2 clause 5.1 & 7.6, Part-3 clause 4.6 and Part 4 – clause 3.4.6).</p> <p>*3) Providing drainage/manhole/water tank covers with adequate strength to bear the weight of Fire Vehicle i.e., 25 tons.</p> <p>4) “No-Parking” Rule shall be strictly enforced in the 6 Meters access space for Fire Vehicles.</p>
III) Means of Escape	<p>1) Providing External Staircase (minimum One Number) with 1.25 meters width constructed either with RCC / Fire protected M.S. (Refer clause 4.11, Part 4 of National Building Code of India).</p> <p>2) In case the above is impossible in the existing Premises, provide horizontal emergency exit through adjacent buildings via suitable bridges preferably at terrace level (Refer clause 4.2.1 and 4.12, Part 4 of National Building Code of India).</p>

III) Means of Escape Contd.	<p>3) <i>Additional 1.50 meters (minimum) width Internal Staircase(s) where aggregate width requirement is deficient based on (i) Clause 4.3, 4.4.2 and 4.6 (Table 20 & 21) of Part 4, NBC (for every 50 Cms. Of stair width, the number of occupants allowing is 25 in case of A, B, C & J, 40 in case of D and 50 in case of E, F, G & H occupancies respectively) and (ii) Travel distance should not exceed 30/45 Meters (Refer Clause 4.5 (Table 22) of Part 4, National Building Code of India) to facilitate means of escape.</i></p>
	<p>4) <i>In case the above is impossible in existing premises, suitably enhanced horizontal exits shall be provided preferably through Fire doors leading to adjacent Fire compartment, which in any case, are required, if floor area exceeds 500 M² /750 M² in case of Mercantile/other occupancies (Refer NBC Part 4 C 1.8, & C.9).</i></p>
	<p>5) <i>Emergency Lighting with Battery Backup of minimum 4 hours in corridors/common passages and staircases to facilitate means of escape.</i></p>
	<p>6) <i>Generator for reliable alternate source of electric supply.</i></p>
	<p>7) <i>Public Address System with Battery backup.</i></p>
	<p>8) <i>Manually operated Fire Alarm System.</i></p>
	<p>9) <i>Ventilation shall be provided at every landing of the External staircase in all floors for venting smoke to facilitate means of escape.</i></p>
	<p>10) <i>Corridors and staircases shall be kept free from obstructions like goods, merchandise, etc., to facilitate means of escape.</i></p>
	<p>*11) <i>Fire Doors with two hours fire resistance shall be provided at appropriate places along the escape route and particularly at the entrance to lift lobby and stairwell to prevent spread of fire and smoke (Refer clause 4.2.9, Part 4 of National Building Code of India).</i></p>
	<p>*12) <i>Compartmentation if Floor area more than 500 M² /750 M² as per Annexure C, 1.8 & C.9, Part 4, National Building Code of India to restrict spread of Fire and Smoke by providing Fire resistant walls/doors at appropriate locations.</i></p>

	<p><i>13) Smoke management measures in respect of Internal Staircases (protected Escape Routes) for all High Rise Buildings and buildings having mixed occupancy having covered area more than 500 M² area (Refer Clause 4.10, Part 4 of National Building Code of India).</i></p> <p><i>14) Safeguard against ingress of smoke or fumes from Fires in Transformers, fuel tanks, parked cars, cooking areas, etc., into building or exit paths.</i></p> <p><i>*15) Provide Fireman Lift for every 1200 M² of Floor area, if the building height exceeds 15 Mtrs.</i></p> <p><i>16) A swing door shall be provided in all grill type and collapsible door type lifts to avoid smoke getting into the lift.</i></p>
<p>IV) First Aid fire fighting equipment</p>	<p><i>1) Portable Fire Extinguishers shall be provided as per IS Specification 2190:1992 in all floors. Enhanced requirements may be stipulated, if so required, for ensuring safety by the Fire Service Department.</i></p>
<p>V) Fixed Fire Fighting Installations</p>	<p><i>1) Based on the heights and occupancy prescribed, fixed Fire Fighting Installations shall be provided as per Table 23, Part 4 of National Building Code of India (Hose Reels, Dry Riser, Wet Riser, Down Comer, Yard Hydrant, Automatic Sprinkler System, Manually operated Electric Fire Alarm Systems, Automatic Detection and Alarm System, Underground Static Water Storage Tank, Terrace Tank and Fire Pumps). (Refer Table 23, Part 4 of National Building Code of India).</i></p> <p><i>Subject to approval of the Fire Service Department, neighbors could have shared installations (for example as in gated community developments, group housing schemes, or as in a series or groups of buildings in a central area, market, colonies, and the like) taking into account the requirements of the largest building being shared.</i></p>
<p>VI) Electrical Safety (Clause 3.4.10, Part 4 of N B C)</p>	<p><i>1) Electrical wiring and installations shall be certified by an Electrical Engineer once in 5 years for Apartments and once in 2 years for the other occupancies. Fire Safety of batteries system in UPSs to be checked in particular.</i></p>

	<p>2) <i>In all High Rise residential complexes and in non-residential occupancies like mercantile, business, assembly, storage, provide:</i></p> <p>a) <i>fast acting Miniature Circuit Breakers (MCB's) to clear short circuits before they can develop into fires and</i></p> <p>b) <i>external main power switches to enable isolate power and forestall short circuits and consequent fires, in the premises, when it is not manned.</i></p> <p>c) <i>However, Security/Fire alarms and emergency lighting to remain powered through separate low power well protected ancillary circuits.</i></p>
	<p>3) <i>Air-conditioning shall have fire protection measures like Automatic Dampers, etc to prevent spreading of smoke and fumes which could otherwise endanger life security. (Refer clause C.1.17, Part 4 of National Building Code of India).</i></p>
	<p>4) <i>Transformers shall be protected with 4 hours rating Fire resistant construction with smoke vent to outside, unless separated from Main Building by 6 Meters distance.</i></p>
	<p>5) <i>Transformers if provided indoor or in basement, shall be provided with automatic High Pressure Water Spray (Mulsifyre) system.</i></p>
	<p>6) <i>One Foam Trolley of 22.5 liters capacity at Electrical Transformer as mandatorily required per IS 2190.</i></p>
	<p>7) <i>Prevent Combustible oil used in Transformers or Diesel Engines, Spreading Fire to other areas, by providing soak pits and curbs.</i></p>
	<p>8) <i>Transformer shall have access for fire fighting from minimum three sides of it, specially if it is located outdoor within six meters of any building. This will enable overcome the serious deficiency in Fire Safety of the transformers and surroundings with are otherwise difficult and costly to rectify.</i></p>
VII) LPG/ Cooking Gases	<p>1) <i>L P Gas pipe lines shall be run in separate shafts away from the staircases on external walls.</i></p>
	<p>2) <i>Adequate ventilation shall be provided for storage of LPG cylinders.</i></p>
	<p>3) <i>Periodical checking of LPG stoves/pipes/cylinders by authorized Mechanic of Gas Distributor.</i></p>
VIII) Fire Safety Plan and Fire	<p>1) <i>Fire Safety Plans should be prepared as per Annexure – E, Part - 4 of National Building Code of India.</i></p>

Drills	2) Occupants shall be made thoroughly conversant with their action in the event of an emergency by displaying fire notices at vantage points in broad lettering.
	3) Fire Notices/orders shall be prepared to fulfill the requirements of fire fighting and evacuation in the event of fire and other emergency
	4) Fire Drills shall be conducted once in three months for the first two years and subsequently once in six months.
	5) Training of the Security/Teaching/Medical Staff and selected Employees in First Aid Fire Fighting and Evacuation at A. P. Fire Service & Home Guards Training Institute, Vattinagulapally, R. R. District.
IX) General:	1) Conversion of occupancy without prior approval shall not be permitted (Refer clause 3.1.12 & 3.1.14, Part 4 of National Building Code of India).
	2) Stilt Floor and Basement shall be used exclusively for parking purpose and permitted utilities only so as to help prevent parking encroachment into access space for Fire Vehicles (Refer clause 3.4.6.1(c) of Part 4 and Clause 12.9 of Part 3, National Building Code of India).
	3) Good House keeping shall be ensured.
	4) Terrace Door shall always be openable from inside, without keys.
	5) Automatic sprinkler system shall be provided in the basement if the area exceeds 200 M ² (Refer clause 5.1.7, Part 4 of National Building Code of India).
	6) Occupancy wise requirements and additional precautions shall be provided as per clause 6, Part 4 of National Building Code of India.
X) Specific Recommendations:	1) In Industrial occupancies access to internal buildings and vulnerable fire locations to be ensured.
	2) Provide bridges between adjacent buildings with Fire Doors for emergency exit (Refer clause 4.2.1 & 4.12, Part 4 of National Building Code of India).
	3) Provide smoke barriers for every 280 M ² Floor area for in patients in Hospitals and ramps for evacuating in –patients.

	4) <i>Special smoke management measures shall be provided for Multiplexes, large Shopping Malls if inter floor compartmentation is not feasible (Refer clause 3.4.8, Part 4 of National Building Code of India).</i>
	5) <i>Smoke venting measures shall be provided particularly for Cinemas, D-3 Assembly, Mercantile, Institutional and Industrial occupancies.</i>
	6) <i>Fire Cracker godowns, etc., should not be allowed in Residential/Mercantile areas.</i>

The Committee recommends that a time period of 6 months may be given for compliance of the above suggested Fire safety measures and thereafter strict enforcement action may be taken by the Fire Department upon failure to do so.

Based on the above requirements the following actions are recommended:

- a) *The Fire Service Department to issue notices to all owners/occupiers of existing Buildings/Complexes covered under Section 13 of A. P. Fire Service Act, 1999 (A. P. Fire Services (Amendment) Act, 2006) for complying with the above mentioned fire safety requirements.*
- b) *The Municipal Corporation / HUDA to issue notices to all owners/occupiers of existing Non-Multi Storeyed Buildings/ Complexes other than covered under Section 13 of A. P. Fire Service Act, 1999 (A. P. Fire Services (Amendment) Act, 2006) for complying with the above mentioned fire safety requirements.*
- c) *After the above retrofitting of the Fire safety installations is complied with in the given time, the Fire Service Department will inspect the buildings/complexes and issue NOC based on the above requirements and drop prosecution as suggested above.*
- d) *After NOC is issued by the Fire Service Department the Owner/occupants of such Buildings/Complexes will have to apply for regularization and pay the penalties at the rate of Rs. 100 per Sq. Ft. of violated built up area in respect of commercial buildings and Rs. 50 per Sq. Ft. of violated built up area in respect of all other buildings failing which, enforcement and coercive measures will be taken up by the local bodies concerned. 10% of this amount shall be utilized by MCH/HUDA/other Municipal Corporations for improvement of Fire infrastructure and modern Fire equipment in their respective areas.*

In addition to this, penal interest in respect of Fire Protection Fees may be levied at the rate of 24% per annum from the date of construction and till such time NOC is obtained from the Fire Service Department.

B) MEASURES RECOMMENDED FOR STATUTORY VIOLATIONS AND STRENGTHENING ENFORCEMENT:

- 1) Prosecution of owners/ occupiers of Multi Stored Buildings who have failed to provide required Fire Safety Measures as per the provisions of National Building Code of India under section-31 of A.P Fire Services Act.1999 and Section 456 of the Hyderabad Municipal Corporation Act, 1955.*
- 2) Punitive action by the Municipal Authorities against the Non Multi storied building under the section 456 of the Hyderabad Municipal Corporation Act, 1955.*
- 3) Black Listing of the builders/ firms/architects/ Structural Engineers of Multi Stored Buildings who have failed to provide required Fire Safety Measures making them responsible for the unauthorized constructions and fire safety violations.*
- 4) Amendment to A.P. Fire Services Act,1999 making a provision for sealing the building on the lines of section 5 of the Delhi Prevention and Fire Safety Act, 1986.*
- 5) Amendment to A.P. Fire Services Act,1999 to enhance the punishment for violation of Fire Safety measures as the existing provision is only conviction for three months and incorporating Provisions for making violations of sec 31 of A. P. Fire Service Act, as cognizable offence.*
- 6) Constitution of Special Courts to deal with the violation of A. P. Fire Service Act, 1999.*
- 7) Providing necessary legally trained staff by creating legal cell headed by a Senior Public Prosecutor in Fire Services Department to deal with the Fire Safety Violations and pursue the cases before the Courts.*
- 8) The Fire Tax i.,e one percent as surcharge on the property tax referred to in Section 36 of A.P. Fire Service Act,1999 and Rule 35 (c) of Fire and Emergency Operations and Levy of Fee Rules ,2004 be implemented at earliest and it should be utilized for strengthening of A. P. Fire and Emergency Services Department.*

- 9) *Creation of Fire Prevention wing with the Officers and personnel to be filled on deputation from Andhra Pradesh Fire Service Department on a fixed tenure basis in the local Bodies to scrutinize the plans of All buildings other than those covered under Section 13 of A. P. Fire Service Act,1999, and to conduct inspections and periodic safety audit of hazardous premises to ensure fire safety compliant to the National Building Code of India,2005.*
- 10) *Amendment of the AP Fire Service Act, 1999 restricting the issue of Final NOC unless the building is constructed in accordance with the provisions of National Building Code of India and make the officers liable for punishment, if their negligence results in issuing of improper Final No Objection Certificate and also providing in the relevant CCA Rules that punishment can be imposed without further inquiry basing on the inquiry on the said occupancy certificate.*
- 11) *Amendment of Municipal laws making a provision for sealing the building and also make a provision in the Municipal laws prohibiting registration without Occupancy Certificate from Municipal Authorities in respect of transfers of any dwelling/commercial building.*
- 12) *Constitution of Special Courts to deal with the offences against the Hyderabad Municipal Corporations Act,1955 and in the AP Urban Areas (Development) Act, 1975 in the Municipal Corporations and Urban Development Authorities areas where there are more violations.*
- 13) *Providing necessary legally trained staff by creating legal cells headed by a Senior Public Prosecutor in Municipal Corporation to deal with the unauthorized constructions and pursue the cases before the Courts on authorized constructions.*
- 14) *Amendment of the Building Rules restricting the issue of occupancy certificate unless the building is constructed in accordance with the approved plan and make the officers liable for punishment, if their negligence results in issuing of improper occupancy certificate and also providing in the relevant CCA Rules that punishment can be imposed without further inquiry basing on the inquiry on the said occupancy certificate.*
- 15) *Amendment to the Act and rules of A.P.TRANSCO and HMWS&SB making provision that no electricity and water connections be given unless a occupancy certificate issued by the Municipal authorities is produced by the person, who require such connection.*
- 16) *Suitable Amendment in the Building Rules to cover Fire safety violations and procedure for blacklisting the builders/ firms/architects/ Structural Engineers and other technical personnel making them responsible for the unauthorized constructions and fire safety violations.*

- 17) *Constitution of High Powered Multi disciplinary committee to:*
- a) *review the fire control measures taken in public places like shopping malls, Cinema Theatres, hotels, etc.,*
 - b) *review the habitual defaulting Builders/Architect/Structural Engineers and other technical personnel recommending their black listing.*
- 18) *Comprehensive review of G.O.Ms. No. 483 MA Dt. 24-8-1998 with regard to high rise buildings.*
- 19) *Making NOC from DG, Fire Services mandatory for providing all public utilities/amenities like Water, power connections in respect of high rise buildings and commercial complexes of height above 15 M.*
- 20) *Amend the A. P. Fire Service Act, 1999 to include in the definition of “fire unsafe buildings” provisions for taking action against such “fire unsafe buildings”.*
- 21) *Implementation of Government instructions issued vide Government Memo. No. 10904/A1/2005-1, Municipal Administration, Dated 23-5-2005 by the Commissioners and Special Officers of all the Municipalities and Corporations in the State to make necessary arrangements for augmenting Water Supply for Fire Fighting purposes by repairing Static Water Tanks, Fire Hydrants and providing additional hydrants at all the required places.*
- It is suggested that 10 % of the penal amount collected by MCH/Other Municipal Corporations/Municipalities/HUDA shall be kept in a separate account and utilized for augmenting the water supply for fire fighting needs in the respective areas.*
- 22) *Security agencies shall be instructed to train their personnel in fire fighting and maintenance of fire equipment at A.P.Fire Services & Home Guards Training Institute, Vattinagulapalli Ranga Reddy District . This will ensure that the equipment is effectively available when there is an incident of fire. It will also help ensure that first aid fire fighting is in progress and preliminary steps have been taken to facilitate the local fire staff arriving at the site.*
- 23) *It is suggested that 10 % of the penalization amount collected form the Building Penalization Scheme excluding the Building Permit fee and other charges should be earmarked for equipping and augmenting the Fire Service Department.*

C) MOTIVATION AND MODALITIES FOR IMPLEMENTATION OF SUGGESTED REMEDIAL MEASURES:

a) It is suggested that in case of non-residential or commercial occupancies, since the cost of rectifying the deficiencies in fire safety measures cannot be grudged, as they are revenue earning and safety of large public is involved hence the builder should pay and provide for it .

b) However, in case of Residential Occupancies i.e., Apartment buildings any of the following suggested methods may be adopted for provision of suggested remedial measures:

*1. **BOOT concept.** A reputed vendor be identified to install the required safety measures as per the recommendations of High Power Committee on 'Build own operate and transfer basis' who will collect rent/charges from the occupants, as recommended by the committee consisting of Local bodies and Fire Officials constituted by the Government.*

*2. **Public Private Participation (PPP concept):***

a) Municipal authorities in consultation with fire services, identify suitable contractors, finalize rate contract, for various fire safety items by constituting appropriate committees from concerned departments by the Government.

b) Occupants/ Fire Services have to certify execution of works to enable contractor to claim re-imbusement from the Municipal authorities, etc., The latter may recoup the cost from occupants by way of surcharge on property tax or it may consider it to be a concession on property tax, given as a incentive to contributing to fire safety.

3. Implement a package of 'incentives and disincentives' for occupants complying or not complying with the fire safety stipulations. The overall cost of incentives availed by a given occupant, can be limited, if so desired.

S. P. SINGH
PRINCIPAL SECRETARY TO GOVERNMENT

Sd/-
SECTION OFFICER