

GOVERNMENT OF ANDHRA PRADESH
FIRE AND EMERGENCY SERVICES DEPARTMENT

From

Smt. Aruna M. Bahuguna, I.P.S.,
Director General of Fire &
Emergency Services,
Andhra Pradesh, Hyderabad.

To

The Commissioner,
Greater Hyderabad Municipal
Corporation
HYDERABAD.

Rc. No. 2216/B1/2008 Dated: .02.2008.

Sir,

Sub: - Fire and Emergency Services Department - Construction of Multi Storeyed Building by M/s **PARAMOUNT ESTATES** in Sy. No. 233, Nagaram Village, Keesara Mandal, Ranga Reddy District - Reg.

- Ref: 1) Letter dated 07.02.2008 of M/s Paramount Estates, Secunderabad.
2). Chief Office Memo. Rc. No. 2216/B1/2008,
3). Report of the Multi-Storeyed Building Inspection Committee A.P., Hyderabad Rc. No.1116/MSB/RR/2008, dt. 19.03.2008.

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1) Apropos reference first cited, M/s **PARAMOUNT ESTATES** in Sy. No. 233, Nagaram Village, Keesara Mandal, Ranga Reddy District have submitted the application in reference cited (1) for construction of Multi Storeyed Building in Sy. No. 233, Nagaram Village, Keesara Mandal, Ranga Reddy District with Basement -1, Stilt floor + 08 Upper floors with a height of 27.00 meters.

2) The Multi-Storeyed Building Inspection Committee A.P., Hyderabad vide reference cited (3) has recommended for the issuance of No Objection Certificate to the proposed Multi Storeyed Building by M/s **PARAMOUNT ESTATES** in Sy. No. 233, Nagaram Village, Keesara Mandal, Ranga Reddy District with Basement-1, Stilt floor + 08 upper floors with a height of 27.00 meters for **Residential Occupancy (Hotel - A5)**

3). Following are the floor-wise details of proposed High Rise Building :

Floor	Area in Sq.mtrs	Occupancy
Basement -I	5876 metres	Parking
Stilt floor	2650 metres	Parking
Floor - 1	2589.10 metres	Residential
floor - 2	2589.10 metres	Residential
Floor - 3	2589.10 metres	Residential
Floor - 4	2589.10 metres	Residential
Floor - 5	2589.10 metres	Residential
Floor - 6	2589.10 metres	Residential
Floor - 7	2589.10 metres	Residential
Floor - 8	2589.10 metres	Residential

4) As per Section 13 (1) of A.P. Fire Service Act, 1999 the No Objection Certificate is issued to the proposed Multi Storeyed Building M/s **PARAMOUNT ESTATES** in Sy. No. 233, Nagaram Village, Keesara Mandal, Ranga Reddy District with Basement-1, Stilt floor + 08 upper floors with a height of 27.00 meters for **Residential Occupancy (Hotel - A5)** the plans are forwarded herewith after countersigning the same for your approval.

5) It is assumed that the technical professionals involved, would have ensured compliance with all relevant rules. The Builder may however be reminded of the following Act/Rules/Regulations:

I. A.P. Fire Service Act, 1999 :

As per Section 31 of "whoever willfully contravenes any provisions of this Act or the rules made there under or fails to comply with any requisition lawfully made upon him under any provisions of this Act shall, without prejudice to any other action taken against him under Section 22 be punishable with imprisonment for a term which may extend to three months or with fine which may extend to twenty five thousand rupees or with both and where the offence is a continuing one, with a further fine which may extend to three thousand rupees for every day during which such offence continues after the conviction for the first such offence.

II. Municipal Corporation Building Bye-Laws, 1981 :

As per Bye-Law 12 "On completion of the building work, the licensed technical personnel shall give notice to the Authority in prescribed form in pursuance of sub-section (1) of Section 455 of the Act."

The Builder, on completion of the Building and before occupation, should intimate the Director General of Fire Services for inspection and issue of "No Objection Certificate".

As per Bye-law 13.1 "No building erected, re-erected or altered materially shall be occupied in whole or in part until the issue of an Occupancy Certificate by the authority affirming that such building is fit for occupation".

III. National Building Code of India :

As per Clause 13.1 of Part-II of the National Building Code of India "neither granting of the permit nor the approval of the drawings and specifications, nor inspections made by the Authority during erection of the building shall in any way relieve the owner of such building from full responsibility for carrying out the work in accordance with the requirements of the National Building Code of India."

IV The A.P. Fire and Emergency operations and levy of fee Rules, 2006 As per Rules 15(5), "On completion of the construction of the High-Rise Building, the applicant shall apply for a "Final No-Objection Certificate" following the prescribed procedures.

The building should not be occupied without obtaining "Final No Objection Certificate" from the Fire Services Department.

V. As per Clause 9.3 of Part II of the National Building Code of India "the Licensed Architect/Engineer/Structural Engineer/Supervisor/Town Planner shall be responsible for supervision of the construction and for the completion certificate. In the event of violation of the provisions of the code he shall be liable to penalties as prescribed by the Authority including cancellation of the Licence."

VI. Multi-Storeyed Building Regulations, 1981 :

a) As per Regulation 06 "in so far as the determination of sufficiency of all aspects of structural design, building services, plumbing, fire protection, practices and safety are concerned, the specifications, standard and code of practice incorporated in the National Building Code of India enforce from time to time and read with G.O 86 (MAUD) dt: 13-03-2006, shall be fully conformed to, and any breach thereof shall be deemed to be a breach of the requirement under the Multi-storeyed Building Regulations."

b) As per Rule 5 (2) of M.S.B. Regulations 1981, the construction of building should be periodically inspected jointly with the representative of Chief Engineer, Hyderabad and District Fire Officer, Hyderabad to ensure that the construction of Multi-storeyed Building is undertaken as per approved plans and Fire Precautionary and Fire Protection measures, as suggested earlier are implemented.

VII. As per clause 3.1.12 of NBC part iv, where change in the occupancy of any building places it in a different group or in a different sub-division of the group, such building shall be made to comply with the requirements of the code for the new group or its sub-division and as per clause 3.1.14. A certificate of occupancy shall be necessary, as also required under clause 14.2.2 of part II, Administration of NBC, before any change is effected in the character or also occupancy of any building.

6) The builder has proposed the following open spaces for the Multi-Storey Building.

	Open space to be provided as per the NBC Part III Clause 8.2.31	Open space provided	Remarks/Deficit
North	09.00 metres	09.00 metres	Nil
East	09.00metres	09.00 metres	Nil
South	09.00 metres	09.00 metres	Nil
West	09.00 metres	09.00 metres	Nil

The hydraulic platform can be freely operated all round the building in the open space proposed by the builder.

7) (a) **MEANS OF ESCAPE:-** The builder has proposed to provide three internal staircase with a width of 01.50 metres each, and 02 external staircases width of 1.50 metres each as per provisions of clause (4) of NBC part IV and the exit requirements are satisfactory.

** (The No. of occupants that can be safely evacuated in stair width of 0.5 mtrs is 25 / 50 / 40 in Residential, Educational, institutional, Business, Mercantile and Assembly Due credit for horizontal exits and availed --- See clause 4.3, 4.4 of NBC par- 4).*

d) The Builder has proposed to provide the following fire fighting systems as per Table 23 of N.B.C. Part IV.

1. Fire Extinguishers as per IS 2190.
2. Hose reel system
3. Down Comer
4. Manually operated electric alarm system in the entire building
5. Automatic sprinklers system in Basement.
6. 03 Nos of terrace tanks of 20,000 litres capacity each.
7. 03 nos of Booster pumps of 900 LPM capacity each.

NOTE: Common pump house and water source are not permissible. The above minimum fire fighting installations shall be provided in each High-Rise Building.

8). Further the MSB inspection committee, have requested that the Provisional NOC be issued with following conditions.

- i All the Fire Safety systems shall be provided as per the provision of Part IV of NBC 2005.
- ii. Levelled, hard, open spaces of 09.00 metres including driveway all around the building to operation of fire vehicles.
- iii. Basement ventilation plan shall as per 12.9 of Part III and C -1.6 of NBC Part IV of India.

- iv. Fire doors with 2 hours fire resistance shall be provided at appropriate places along the escape route and particularly at the entrance to lift lobby corridors stairwells.
- v. One Fire lift for every 1200 Sq. metres area.
- vi. Refuge area shall be provided at 24 metres level and after that at every 05 floors level.
- vii. Smoke venting facilities for safe use of exits shall be provided as per clause 3.4.12 of NBC.
- viii. Illumination of Means of exit in staircase and corridors shall be comply with clause C-1.4 of NBC Part IV.
- ix. Provision of Auto-glow exits signs in corridors, staircases and entire escape route.
- x. Compartmentation should be provided in basement area s per clause C.9 of Annexure C part 4 of NBC 2005.
- ix. All the Fire Safety systems shall be provided as per the Provision of NBC of India.

9) The following are the specific details of the mandatory Fire Safety measures to be provided in the Multi Storied Building required as per National Building Code of India, 2005. (The following is not all inclusive Refer NBC-4 check List is in Form-16 (Rule-15.1.A) and conditions stipulated by Fire services vide section -13.2 of A.P Fire Act.)

- i) The building shall be suitably compartmentalized so that fire/smoke remain Confined to the area where fire incident has occurred and does not spread to the remaining part of the building as per Clause C-9 of NBC, 2005 Part-4 Annexure-C.
- ii) Openings in separating walls in any floor shall be limited to 5.6 Mtrs. in area with maximum height of 2.75 Mtrs. Every wall opening shall be protected with Fire resisting doors having fire rating of not less than two hours. All openings in the floors shall be protected by vertical enclosures extending above and below such openings, the wall of such enclosures having a fire resistance of not less than two hours and all openings therein being protected with a fire resisting assembly *strictly complying with I.S 3614 part-1 -1966* and Clause 3.4.8 of NBC, 2005 Part-4.
- iii) Every vertical opening between at the floors shall be suitably enclosed or protected, as necessary to provide the following:
 - a. Minimum standards of Fire Safety measures in public interest for safety to the occupants while using the means of egress by preventing spread of fire, smoke, or fumes through vertical openings from floor to floor to allow occupants to complete their use of the means of egress. Further it shall ensure to provide a clear height of 21.00 MM in the passage/escape path of the occupants (clause 3.4.84 of part 4).
 - b. Limitation of damage to the building and its contents (See Clause 3.4.8.4 Part - 4 of NBC, 2005).

Note: *Where suitable enclosure is not practical, as in case of large areas like in Assembly occupancy sub-group D-6, resort to designs as per reputed standards (Ex: NFPA-90/92 or equivalent) in terms of clause-5.2 and 7.6 of NBC part-2 can be considered subject to approval by Fire Services.*

- iv. Where openings are permitted, such assemblies and enclosures shall also be capable of preventing the spread of smoke or fumes through the openings so as to facilitate the safe evacuation of building in case of fire (as per clause 3.4.9). IS-No. 12458-1988.

- v. Air conditioning and ventilating systems shall be so installed and maintained as to minimize the danger of spread of fire, smoke or fumes from one floor to other or from outside to any occupied building or structure (Clause 3.4.11.1) Part 4 of NBC, 2005.
- vi. Effective means for preventing circulation of smoke through the AC system in case of fire in air filters are from other sources drawn into the system, and shall have smoke sensitive devices for actuation in accordance with the accepted standards (Clause 3.4.11.3) Part 4 of National Building Code of India 2005.
- vii. Separate air handling units for each floor shall be provided to avoid the hazards arising from spread of fire and smoke through air conditioning ducts (Clause 3.4.11.4) Part 4 of NBC, 2005.
- viii. Fire Dampers shall be provided in the AC system designed so as to close automatically in case of fire and thereby preventing spread of fire or smoke.
- ix. Pressurization of staircases shall be done as per Clause 4.10 Part 4 of NBC, 2005 and test certificate of performance shall be submitted for Approval.
- x. Fire doors with 2 hours fire resistance shall be provided at appropriate place along the escape route and particularly at the entrance to the lift lobby and stair Well to prevent spread of fire and smoke (Clause 4.2.9) Part 4 of NBC, 2005.
- xi. Smoke venting facilities for safe use of exits shall be provided as per Clause 3.4.12 Part 4 NBC, 2005. Emergency power shall be provided for smoke venting equipment.
- xii. Flame retardant material only should be made use for interior decoration and upholstery to prevent generation of toxic smoke/flames. The surface interior finishes shall comply (Clause 3.4.15) Part 4 of NBC, 2005.
- xiii. 02 Nos. Fire Lifts complying to Clause C 1.5 Q of Annexure-C of Part 4 of NBC, 2005 shall be provided i.e. one Fire Lift for 1200 sq. meters of floor area.
- ivx. Basements ventilation shall comply to Clause C 1.6 of Annexure-C of part 4 of NBC, 2005 as detailed below.
 - a) Clause C - 1.6.1: Each basement shall be separately ventilated. Vents with cross-sectional area (aggregate) not less than 2.5 percent of the floor area spread evenly round the perimeter of the basement shall be provided in the form of grills, or breakable stall board lights or pavement lights or by way of shafts. Alternatively, a system of air inlets shall be provided at basement floor level and smoke outlets at basement ceiling level. Inlets and extracts may be terminated at ground level with stall board or pavement lights should be in positions easily accessible to the fire brigade and clearly marked 'SMOKE OUTLET' or 'AIR INLET' with an indication of are served at or near the opening.
 - b) Clause C - 1.6.2: The staircase of basements shall be of enclosed type having fire resistance of not less than 2 h and shall be situated at the periphery of the basement to be entered at ground level only from the open air and in such positions that smoke from any fire in the basement shall not obstruct any exit serving the ground and upper stores of the building and shall communicate with basement through a lobby provided with fire resisting self closing doors of 1 h resistance. For travel distance see 4.5. If the travel distance exceeds as given in Table 21, additional staircases shall be provided at proper places.

- c) Clause C - 1.6.3: In Multi-storey basements, intake ducts may serve all basement levels, but each basement levels and basement compartment shall have separate smoke outlet duct or ducts. Ducts so provided shall have the same fire resistance rating as the compartment itself. Fire rating may be taken as the required smoke extraction time for smoke extraction ducts.
- d) Clause C - 1.6.4: Mechanical extractors for smoke venting system from lower basement levels shall also be provided. The system shall be of such design as to operate on actuation of heat/smoke sensitive detectors or sprinklers, if installed, and shall have a considerably superior performance compared to the standard units. It shall also have an arrangement to start it manually.
- e) Clause C - 1.6.4.1: Mechanical extractors shall have an internal locking arrangement, so that extractors shall continue to operate and supply fans shall stop automatically with the actuation of fire detectors.
- f) Clause C - 1.6.4.2: Mechanical extractors shall be designed to permit 30 air change per hour in case or distress call. However, for normal operation, air changes schedule shall be as given in 3.4.11.5.
- g) Clause C - 1.6.4.3: Mechanical extractors shall have an alternative source of supply.
- h) Clause C - 1.6.4.4: Ventilating ducts shall be integrated with the structure and made out of brick masonry or reinforced cement concrete as far as possible and when this duct crosses the transformer area or electrical switchboard, fire dampers shall be provided.
- i) Clause C - 1.6.5: Use of basements for kitchens working on gas fuel shall not be permitted, unless air conditioned. The basement shall not be permitted below the ward block of a hospital/nursing home unless it is fully sprinkled. Building services such as electrical sub-stations, boiler rooms in basements shall comply with the provisions of the Indian Electricity Act/Rules.
- j) Clause C - 1.6.6: If cut outs are provided from basements to the upper floors or head at close spacing so as to form a water curtain in the event of a fire.
 - a. Each part of the system should have an independent power supply which would operate in the event of failure of the main supply.
 - b. Extract points should be arranged so that 50 % of the outlets are at high level and 50 % at low level, and
 - c. The fans should be rated to run at 300 ° C for a minimum of 60 Minutes and the duct work and fixings should be constructed of materials having a melting point not less than 800 ° C (for further information on equipment for removing hot smoke refer to BS 7346:Part II – Components for Smoke and Heat control systems, Specification for powered smoke and heat exhaust ventilators).
- x. Illumination of means of exit in staircase and corridors shall comply with Clause C.1.4 of Annexure-C part IV of NBC, 2005.
- ix. All fire safety measures as detailed above and as per NBC shall be provided. The Builder should ensure that the Automatic Sprinkler system, Automatic Detection and Alarm system, Hydrant and Hose systems, Emergency and Standby power systems shall also conform to the relevant reputed international standards viz., NFPA / British Standards.

- x. Refuge Areas shall be provided at 24 Meters height and after every 15 metres as per Clause 4.12.3, part 4 of National Building Code of India, 2005.
- xi. Fire Safety plan:-
- a. A Fire safety plan for preventing and extinguishing any fire accident in each block/building Fire safety plans distributed to all tenets / occupied of the building management to all their building employees. The Fire safety plan shall be submitted to the fire bridge for approval.
 - B A Fire Command Station should be established in the lobby of building on the entrance floor and such command station be adequately illuminated.
 - C. The main control of the public address system, and fire alarm system should be at Fire Command station.
 - d. A Fire Safety Director/ building evacuation supervisor should be nominated for the building. He should nominate a Fire Warden for each floor of the Building, does anything, which causes or Stimulates a fire Prevention measures, he should take action as deemed fit to ensure fire safety in public interest.
 - e. The builder shall ensure safe evacuation of Physically challenged/ Senior citizens during Fire and other emergencies.
- xii) FIRE OFFICER: A qualified Fire Officer with experience of not less than 3 years should be appointed as a caretaker for the entire premises. He should be entrusted with the responsibility of maintaining the systems suggested above, to layout fire orders and Fire & Emergency Services.
- xiii) TRAINING: 40% of the occupants/employees should be got trained in fire prevention & fire fighting at Fire & Emergency services within 6 months from the date of occupation of the building from the Andhra Pradesh Fire Service & Home Guards Training Institute, Vattinagulapally village, Ranga Reddy District (Appendix D - 5, Appendix D - 6, Appendix D - 8, Appendix E, Part 4 of National Building Code of India, 2005).
- ivx) GENERAL:
- a. Before approaching the departments for final clearance certificate, the applicant should give an undertaking in the form of an affidavit regarding the maintenance of the Fire Prevention and Fire Fighting measures suggested above and arranging Training of 40% of the occupants in fire prevention and fire fighting within 6 months from the date of issue of clearance certificate.
 - b. Hazardous materials such as petroleum products, explosives, chemicals etc should not be stored on any floor of the building.
 - c. Good house keeping should be maintained in all the floors.
 - d. Liquefied petroleum gas except domestic cylinders should not be stored in the Building.
 - e. Plan & occupancy should not be changed without informing fire & emergency services and without taking clearance.
 - f. The occupancy Certificate should not be issued without obtaining the clearance certificate the fire services department as per regulation 5(3) of MSBR-1981.
 - g. All the metal fittings of wet riser system and all the extinguishers suggested above should have B.I.S. markings.
 - h. Such changes/modifications as may be found necessary during the construction or after of Fire Act will have to be carried by the builder/occupants of the building.

- i. The builder shall provide any additional Fire Safety measures which the Andhra Pradesh Fire & Emergency Services Department imposes in the interest of Public Safety, without fail.

10) (a) This No Objection Certificate is issued with a condition that if the builder makes any deviation from the Fire and Life Safety measures in the sanctioned plan / NBC, the entire building shall be demolished irrespective of the stage of construction.

(b) It may be noted that as per para 5 (vii) above, this NOC is valid for the occupancy indicated above.

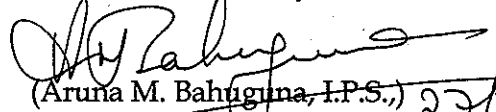
(c) Strict compliance with NBC part-4 and G.O 86 mandating deployment of Fire Engineer in design to implementation stages is essential. This would obviate the need for costly post construction rectification, if any.

(d) Violation of commitments made by the applicant in Form no 16 would be viewed seriously and defaulter liable for action.

11) You are requested to issue necessary instructions to C.E., Ranga Reddy to undertake periodical joint inspection of the Multi-storeyed Building during the construction along with District Fire Officer, Ranga Reddy to ensure that the construction of High-Rise Building is undertaken as per approved plans and fire precautionary and fire protection measures as suggested are implemented.

11) The builder shall provide any additional Fire safety measures which the Andhra Pradesh Fire and Emergency Services Department imposes in the interest of Public Safety, without fail.

Yours faithfully,


(Aruna M. Bahuguna, I.P.S.)

2/15 Director General of Fire and Emergency Services, 27/3/08
Andhra Pradesh, Hyderabad. 26/3/08

Copies to:

- i) M/s. Paramount Estates, 5-4-187/324, II floor Sohan Mansion, M.G. Road, Secunderabad.
- ii) Multi-Storeyed Building Inspection Committee, i.e. Regional Fire Officer, Central Region, District Fire Officer, Ranga Reddy District and Asst. District Fire Officer, Hyderabad (with a set of countersigned plans).
- iii) The Station Fire Officer, Malkajgiri Fire Station (with out a set of countersigned plans).