

**MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION  
( A Govt. of Maharashtra Undertaking )**

Udyog Sarathi Bldg.  
Marol Indl. Area  
Mahakali Caves Road  
Andheri ( East )  
Mumbai 400 093.

No. MIDC/FIRE/1409

Date: 28/8/2008.

**OFFICE ORDER**

**Sub :- Implementation of the D.C. Rules and Part 4 of National Building Code of India in view of Fire & Life Safety measures.....**

**Ref :- 1. CFO & FA, MIDC's Circular No. MIDC/Fire/ 18 dated 05/01/2006.**  
**2. CEO, MIDC's Circular No. MIDC/Fire/516 dated 03/04/2006.**  
**3. letter issued by Urban Development Deptt. Vide**  
क्रमांक : अप्रवृ/प्र.क्र.१२३/नवि २६ दिनांक : ३० नोव्हेंबर २००४.

01 With reference to the above the powers of Chief Fire Officer & Fire Advisor, MIDC are Delegated to Fire Officers and to the **Dy. Engineers functioning as a Special Planning Authorities up to 1000 Sqm. Low hazard Industries & 2000 Sqm. For Residential for the MIDC Industrial Areas.**

02. The Building Proposals for the approval of Plans and issue of Building Completion Certificate and Occupancy Certificate thereof are mainly exercise by the Dy. Engineers (functioning as a Special Planning Authorities) & or in certain cases the respective Executive Engineers, The Development Control Rules of MIDC and Part 4 of **National Building Code of India has adequate provisions for Fire & Life Safety Measures to be taken while according approval to the Plans & while issue of Building Completion Certificate and Occupancy Certificate thereof.**

03. There are number of cases being referred to the Fire Officer posted at strategic locations and the Divisional Fire Officer at Mumbai, Pune & Nagpur. Certain cases such as High Rise Building and Mega Project are being examined by Dy. Chief Fire Officer and Chief Fire Officer at HQ.

04. We have already delegated the powers to the Engineers nominated as a Special Planning Authority to examine the Fire & Life Safety requirements as per the check list provided to these Officers upto the plot size of 1000 sq. mtrs. for the building upto 15 mtrs. of height. Vide circular mention under reference No. 2 above. It is observed in some cases that the checklist enclosed is not flowed by SPAs and it is presumed by them that upto 1000 Sqm Fire approval is not required is not correct.

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05. The steps are being taken to strengthen the Fire Department not only to deal with the Fire Prevention Approvals but for quick response to combat the fire and rescue emergencies arising in the Industrial areas. The automation of the Building Proposal System and issue of Fire Prevention and Protection approvals, pilot project is being launched in a month's time HQ & Pune office.
06. In view of the above facts to minimize the efforts to our Plot holders as a Stop-Gap arrangement it is proposed to grant the powers of the Fire Department to Engineers nominated as Special Planning Authorities. The powers of granting Fire approvals are extended from **1000 sq. meters to of 3000 sq. mtrs.** Of the plot area carrying out the activity of non hazardous industrial buildings and residential buildings having height less than 15 mtrs. And built up area less than 500 sq. meters. on each floor except special buildings.
07. Cases otherwise mention in the Category specified in para-6 above shall be referred to the **Fire Department, through the concern Fire Officer at different locations as shown in Annexure - IV.**
08. The classification of the buildings: Building carrying out Non-hazardous activities such as Engineering, Food Processing, Agro-Processing. The concern Special Planning Authorities are expected to issue the **Provisional Fire approval** in the format to be enclosed with the circular vide **Annexure-I & Final Plan approval as per Annexure - II** The check-list to facilitate the Engineer to check the minimum compliances to avert the Fire or stamped mishaps. It shall be obligatory on the part of the Special Planning Authorities Officers to be meticulous for the necessary compliances as per the **check list & Guidelines for Fire approval as per Annexure-III** In case, if they come across the same complex kind of process activity where Petroleum product, Gas or any other inflammable fuel as used may be even by Engineering industries the minimum requirements for the **LPG bullet, petroleum storage to be examine as per the check-list separately given for the purpose.**
09. It shall be the responsibility of the Special Planning Authority to enter the Inward and Outward of Fire Approvals accorded by them and also the Fire Protection Fees recovered by them as per the Circular No. MIDC/ Fire Deptt./ 1078 dated 12/07/2006. They should enter the date in the Fire Approval Management System made available on the MIDC's **Website www.midcfire-noc.com**
10. The renewal of these Fire Approvals will be dealt by the Fire Department. The renewal being a planned activity doesn't invite the pressure on either MIDC or the Plot holders.



11. A suitable training programme will also be arranged initially for the Special Planning Offices in MMR & PMR area for clarity in understanding and also to develop the perception to deal with these approvals.

12. SPA has to issue *No-Objection Certificate for any change in activity or Proposed expansion or Subletting of Plot or Transfer of Plot as per the above guidelines.*

13. It is obvious that while exercising the delegated authority all the concern Officers shall be responsible to ensure that the effective steps are taken. On need basis they may take the advice from the nearest Divisional Fire Officer or Fire Officer or any Officers in the Head Quarter by referring the case by email or as per their convenience. A random check of the Approval accorded by the Special Planning Authorities will be carried out by respective Fire Officer or any Fire Officer nominated by the Chief Fire Officer & Fire Adviser, M.I.D.C.

The guidelines in this circular shall be followed scrupulously by all the SPA's in MIDC.

  
( Rajiv Jalota )  
Chief Executive Officer,  
MIDC, Mumbai.

D.A. : As above

Copy to :-

1. All Heads of the departments in MIDC
2. All Superintending Engineers in MIDC
3. All Executive Engineers in MIDC
4. All Divisional Fire Officers in MIDC
5. All Deputy Engineers in MIDC
6. All Fire Officers in MIDC
7. Guard File / Circular File

NO.MIDC/FIRE /PROV-NOC

DATE:

M/s.

Sub: Grant of "Provisional No Objection Certificate" for your  
Proposed construction \_\_\_\_\_ on Plot No. \_\_\_\_\_  
ABC Indl. Area, Navi Mumbai.

Ref : Company's application No. NIL Dated.

ddDear Sir,

This has reference to your application under reference above. This office has  
"NO Objection (Provisional)" for your proposed constructions situated on Plot No.  
ABC Indl. Area. The Activity of the company is \_\_\_\_\_ as per  
MPCB Consent. The details of the proposed construction is as given in the following  
drawings submitted by the company.

Sr.NO	Name of the Structure.	Area in Sq.mts.	Drawing No.
1.			
2.			
3.			
4.			
5.			

This N.O.C. is valid subject to fulfillment of the following conditions.

- (1) The plans of the factory should be approved by the Special Planning Authority MIDC.
- (2) The building completion certificate should be obtained from Special Planning Authority M.I.D.C. The B.C.C. shall be issued subject to final N.O.C. from this office.
- (3) Construction of the building should be as per the guidelines given in IS standards given below:
  - a. Code of practice for Fire Safety Buildings IS-1642 – for Details of Construction.
  - b. Code of Practice of Fire Safety of Buildings IS-1643 – Exposure Hazard.
  - c. Code of Practice of Fire Safety of Buildings IS-1644 – Exit requirement and Personal Hazard.
- (4) Proper roads in the premises should be provided & marked on ground for easy mobility of the Fire Brigade Appliance as per the guidelines given in DC Rules of MIDC, should be kept free from obstructions all the time. The load bearing capacity of internal roads must be minimum 45Tones. The encroachment in the Fire Lane will be treated as serious offence as per the Provisions of new Maharashtra Fire Prevention & Life Safety Measures Act-2006.

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- (5) All portable fire fighting equipments installed at various locations as per local hazard such as Co2-DCP, Foam, Fire buckets should be strictly conforming to relevant IS specification. All the fire fighting equipments shall be well maintained and should be easily accessible in case of emergency. The monitoring mechanism for all Fire fighting equipment should be designed and implemented. **The Guidelines should be followed based on IS-2190 – Code of Practice for selection, Installation and Maintenance of Portable First-Aid Fire Extinguishers.**
- (6) Emergency Telephone numbers like "Police", "Fire Brigade", "Hospital", "Doctors", and "Responsible persons of the company" should be displayed in security cabin.
- (7) It shall be ensured that all security staff should be trained in Fire Fighting from **State Fire Training Centre, Mumbai.**
- (8) "Fire Extinguisher", "Fire Bucket" "Danger" "No Smoking" caution boards should be displayed at the places physically shown where ever required & the caution boards should be easily visible.
- (9) The house keeping shall be well maintained within the entire plant area.
- (10) All electrical appliances/fixings and fixtures should be strictly should of IS Standards.

**GUIDELINES FOR INTERNAL STAIRWAYS as per NBC 2005**

- a) Stairways shall be constructed of non-combustible materials throughout. Hollow combustible construction shall not be permitted. Width of Staircase should be 1.5 M.
- b) No Gas piping shall be laid down in the stairway.
- c) Internal staircase shall be constructed as a self-contained unit with at least one side adjacent to an external walls and shall be completely enclosed.
- d) Internal staircase shall not be arranged around lift shaft unless the later is entirely enclosed by material of fire resistance rating as that for type of construction itself.
- e) The access to main staircase shall be gained through at least half-an-hour fire resisting automatic closing doors, placed in the enclosing walls of the staircase. They shall be swing type doors opening in the direction of the escape.
- f) No living space, store or other space, involving fire risk, shall open directly in to staircase.
- g) The external exit door of a staircase enclosure at ground level shall open directly to the open space or should be accessible without passing through any door other than a door provided to form a draught lobby.
- h) The exit signs with arrows indicating the escape routes shall be provided at a height of 1.5 m, from the floor level on the wall and shall painted with fluorescent paint. All exit signs should be flush with the wall and so designed that no mechanical damage to them can result from the removing furniture, material or any other equipment.
- i) Exits shall be so located that it will not be necessary to travel more than 30 m. from any point to reach the nearest exit.

**FIRE ESCAPE: (ENCLOSED TYPE ) SHALL COMPLY THE FOLLOWING: -**

1. Travel Distance should be maintained 30 M as per the guidelines given in D.C. Rules of MIDC. Exits and staircase guidelines should be followed as per MIDC's DC Rules and National Building Code-2005
2. Fire escape constructed of M.S. angels is not permitted.
3. Opening of the Fire Escape Staircase should be from outside.



4. Fire Escape staircase should be enclosed type. These should always be kept in sound operable condition.
5. Exits door shall open outwards, that is away from the room, but shall not obstruct the travel along any exit.
6. Fire Escape Staircase shall be directly connected to the ground.
7. Entrance to the Fire Staircase shall be separate and remote from the internal staircase.
8. Care shall be taken to ensure that no wall opening or window opens on to or close to Fire Escape Stairs.
9. The route to the external staircase shall be free of obstructions at all times.
10. The Fire Escape stairs shall be constructed of non-combustible materials, and any doorway leading to it shall have the required fire resistance.
11. No Staircase, used as a fire escape, shall be inclined at an angle greater than  $45^{\circ}$  from the horizontal.
12. The width of the staircase should as given in DC Rules of MIDC. The other detailed provision for exits in accordance with National building code - 2005.
13. Fire Staircase shall have straight flight not less than 125 c.m. wide with 20 c.m. treads and risers not more than 19 c.m. The number of risers shall be limited to 15 per flight.
14. Handrails shall be of a height not less than 100 c.m. and not exceeding 120 c.m.

#### **Staircase Design requirement:**

1. The minimum headroom in a passage under the landing of a staircase and under the staircases shall be 2.2 Mtrs.
2. Access to main staircase shall be through a fire / smoke check door of a minimum 2 hours fire resistance rating.
3. No living space, store or other fire risk shall open directly in to the staircases.
4. The main and external staircases shall be continuous from ground floor to the terrace level.
5. No electrical shafts, A/c ducts or gas pipe etc. shall pass through or open in the staircases. Lifts shall not open in staircases.
6. All the staircases shall be provided with mechanical Pressurization devices, which will inject the air in to staircase, lobbies or corridors to raise their pressure slightly above the pressure in adjacent parts of the building so the entry of toxic gases or smoke in to the escape routes is prevented.

#### **Staircase Enclosures :-**

1. The external enclosing walls of the staircase shall be of the brick or the RCC construction having the fire resistance of not less than two hours. All enclosed staircases shall have access through self closing door of one hour fire resistance. These shall be single swing doors opening in the direction of escape. The door shall be fitted with the check action door closers.
2. The staircase enclosures on the external wall of the building shall be ventilated to the atmosphere at each landing.

- C) Ensuring that fire alarm call points and fire fighting equipments provided along the escape routes can be readily located.
3. The horizontal luminance at floor level on the centerline of an escape route shall be not less than 10 lux. In addition, for escape routes up to 2 m wide, 50 percent of the route width shall be lit to a minimum of 5 lux.
4. The emergency lighting shall be provided to be put on within 1 s of the failure of the normal lighting supply.
5. Escape lighting luminaries should be sited to cover the following locations
  - a) Near each intersection of corridors
  - b) At each exit door
  - c) Near each change of direction in the escape route
  - d) Near each staircase so that each flight of staircase receives direct light.
  - e) Near any other change of floor level.
  - f) Outside each final exit and close to it.
  - g) Near each fire alarm call point.
  - h) Near fire fighting equipment, and
  - i) To illuminate exit and safety signs as required by the fire department.
6. Emergency lighting systems shall be designed to ensure that a fault or failure in any one luminaire does not further reduce the effectiveness of the system.
7. The luminaires shall be mounted as low as possible but at least 2 m above the floor level.
8. Signs are required at all exits, emergency exits and escape routes, which should comply with the graphic requirements of the relevant Indian Standard.
9. Emergency lighting luminaires and their fittings shall be of non flammable type.
10. It is essential that the wiring and installation of the emergency lighting system are of high quality so as to ensure their perfect serviceability at all times.
11. The emergency lighting system shall be capable of continuous operation for a minimum duration of 1 hour and 30 minutes even for the smallest premises.
12. The emergency lighting system shall be well maintained by periodical inspections and tests so as to ensure their perfect serviceability at all times.

#### **GUIDELINES FOR ADMIN BUILDING:**

- Portable fire fighting equipments should be installed at various locations as shown at the time of inspection, such as Co2-DCP, Foam, Fire buckets should be strictly confirming to relevant IS specification. All the fire fighting equipments shall be well maintained and should be easily accessible in case of emergency.
- "Fire Extinguisher", "Fire Bucket" "Danger" "No Smoking" caution boards should be displayed at the places physically shown & the caution boards should be easily visible and as per the guidelines given in IS:9457, IS:12349 and IS:12407.

#### **GUIDELINES FOR PLANT AREA:**

- Portable fire fighting equipments should be installed at various locations as shown at the time of inspection, such as Co2-DCP, Foam, Fire buckets should be strictly confirming to relevant IS specification. All the fire fighting equipments shall be well maintained and should be easily accessible in case of emergency.



3. Permanent vent at the top equal to the 5% of the cross section area of the enclosure and openable sashes at each floor level with area equal to 1 to 15 % of the cross sectional area of the enclosure on external shall be provided. The roof of the shaft shall be at least 1 meter above the surrounding roof. There shall be no glazing or the glass bricks in any internal closing wall of staircase. If the staircase is in the core of the building and cannot be ventilated at each landing a positive pressure of 5 mm w.g. by an electrically operated blower/ blowers shall be maintained.
4. The mechanism for pressurizing the staircase shaft shall be so installed that the same shall operate automatically on fire alarm system/ sprinkler system and be provided with manual operation facilities.

#### **Illumination of Means of Exit :-**

Staircase and corridor lights shall confirm to the following :-

- a) The staircase and corridor lighting shall be on separate circuit and shall be independently connected so that it could be operated by one switch installation on the ground floor easily accessible to fire fighting staff at any time irrespective of the position of the individual control of the light points, if any. It should be of miniature circuit breaker type of switch so as to avoid replacement of fuse in case of crises.
- b) Staircase and corridor lighting shall also be connected to alternative supply. The alternative source of supply may be provided by battery continuously trickle charged from the electric mains; and
- c) Suitable arrangements shall be made by installing double throw switches to ensure that the lighting installed in the staircase and the corridor does not get connected to two sources of supply simultaneously. Double throw switch shall be installed in the service room for terminating the stand by supply.

#### **STAIRCASE AND CORRIDOR LIGHTINGS:**

- a) The staircase and corridor lighting shall be on separate service and shall be independently connected so as it could be operated by one switch installation on the ground floor easily accessible to fire fighting staff at any time irrespective of the position of the individual control of the light points, if any.
- b) Staircase and corridor lighting shall also be connected to alternate source of supply.
- c) Suitable arrangements shall be made by installing double throw switches to ensure that the lighting installed in the staircase and the corridor do not get connected to the sources of supply simultaneously. Double throw switch shall be installed in the service room for terminating the stand by supply.
- d) Emergency lights shall be provided in the staircase/corridor.
- e) Passageway should be provided as per the guidelines given in National Building Code- 2005.

#### **Emergency and Escape Lighting :-**

1. Emergency lighting shall be powered from a source independent of that supplying the normal lighting.
2. Escape lighting shall be capable of
  - A) Indicating clearly and unambiguously the escape routes.
  - B) Providing adequate illumination along such routes to allow safe movement of persons towards and through the exits.



- "Fire Extinguisher", "Fire Bucket" "Danger" "No Smoking" caution boards should be displayed at the places physically shown & the caution boards should be easily visible and as per the guidelines given in IS:9457, IS:12349 and IS:12407.
- The house keeping shall be well maintained within the entire plant area.
- Other recommendations given in the Table given below.

**REQUIREMENT AND PROVISION: - The following Fire protection system is required for the safety of the building:-**

Sr. No.	FIRE FIGHTING INSTALLATION	Requirements	Provision	Remarks
1.	Portable fire fighting equipments	At Prominent Places		Fire Extinguishers to be provided in addition to the existing Fire Extinguishers provided in existing Plant at the following locations. <u>All Provisions should be made as per IS-2190 specification.</u>
2.	Underground Static Storage Tank	Required ltrs.		This water storage should be used exclusively for Fire Fighting.
3.	Sign Indicators for all fire safety, safe evacuation of occupants in case of emergency	Required	Sign indicators should provided at prominent places as per the guidelines given in  <b>IS:9457 for Safety colour and Safety signs</b> <b>IS:12349 for Fire Protection Safety Signs</b> <b>IS:12407 for Graphics symbols for Fire Protection Plan.</b>	
4.	Wire-meshed Glass	Required	Wire meshed Glass should be provided for the Proposed Building.	

**CANTEEN AREA (LPG Storage):**

- If L.P.G. is used for cooking purpose in canteen the L.P.G. pipelines & fittings & accessories used shall be strictly confirming to **IS: 6044 Part-I**. The L.P.G. pipeline & related installation shall be done by reputed and authorised agency. The agency shall issue a certificate that the work is carried out as per **IS: 6044 Part-I**.
- The L.P.G. storage area shall be provided with a separate shed painted in "RED" colour, "Danger" "No-Smoking" signs shall be painted on the door of L.P.G. shed. The shed should be always kept in lock and key & the key of the L.P.G. shed shall be kept with responsible person of the company.
- Minimum Two Exits should be provided diagonally opposite to each other and minimum two staircases diagonally opposite shall be provided to approach first floor of the canteen building.
- Nos. of DCP Fire Extinguishers of 50 Kgs each should be provided near LPG Battery.

**BASEMENT PROVISION :**

The basement shall not be used for residential purposes.

- The provisions specified under the Development Control Rules should be followed.
- The basement to be constructed within the building envelope and subject to maximum coverage on floor 1 (entrance floor) may be put to only the following uses:
  - a. Storage of household or other goods of ordinarily non- combustible material;
  - b) Strong rooms, bank cellars, etc;
  - c) Air-conditioning equipment and other machines used for services and utilities of the building; and
  - d) Parking spaces.

The basement shall have the following requirements:-

- a) Every basement shall be in every part at least 2.4 m in height from the floor to the underside of the roof slab or ceiling;
- b) Adequate ventilation shall be provided for the basement. The ventilation requirements shall be the same as required by the particular occupancy according to byelaws. Any deficiency may be met by providing adequate mechanical ventilation in the form of blowers, exhaust fans air-conditioning systems, etc;
- c) The minimum height of the ceiling of any basement shall be 0.9 m and the maximum 1.2 m above the average surrounding ground level.
- d) Adequate arrangements shall be made such that surface drainage does not enter the basement.
- e) Automatic Sprinkler system should be provided for the Basement area.
- f) Dewatering system should be provided for the Basement.
- g) Fire Doors should be provided for the Basement opening.
- h) Separate Ramp should be provided for IN and OUT entry.

The walls and floors of the basement shall be watertight and be so designed that the effects of the surrounding soil and moisture, if any, are taken into account in design and adequate damp proofing treatment is given; and The access to the basement shall be separate from the main and alternative staircase providing access and exit from higher floors. Where the staircase is continuous in the case of buildings served by more than one staircase, the same shall be of enclosed type serving as a fire separation from the basement floor and higher floors.

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.



**GUIDELINES FOR RAW MATERIAL STORE/GODOWN :-**

1. The storage in godown should be in a systematic way proper roads should be marked by "Yellow" colour & should be kept free of obstruction all the time.
2. The maximum stacking height should be marked on the walls in RED colour. The stacking height should not be more than the red line. Red line should be marked on 1.5 mtrs. from lowest roof level.
3. All electrical fitting, fixtures should be flameproof & conforming to relevant IS. All electrical wiring, fitting & fixture should be above the red line (stacking limit line)
4. The indication mark like Exits, Fire Escape, etc. should be prominently marked with florescent paint so that it can be seen in darkness.

**ELECTRICAL SERVICES:**

1. The electric distribution cables/wiring shall be laid in separate duct. The duct shall be sealed at every alternate floor with non-combustible materials having same fire resistance as that of the duct.
2. Water mains, telephone lines, intercom lines, gas pipes or any other service lines shall not be laid in the duct of electric cables.
3. Separate circuits for water pumps, lifts, staircase & corridor lighting shall be provided directly from the main switch gear panel and these circuits shall be laid in separate conduit pipes so that fire in one circuit will not affect the others.
4. Medium & low voltage wiring running in shaft and within fall ceiling shall run in metal conduit.

In addition to the above, all provision under the D.C. Rules of MIDC and N.B.C. shall be strictly adhered, also if any change in activity or Proposed expansion or Subletting of Plot or Transfer of Plot, NOC from this department is essential.

This is a "Provisional No-Objection Certificate" for the details given above, which shall be treated valid for the period of one year from the date of Issue and it is your responsibility to get the same renewed after satisfactory inspection of fire fighting installations and arrangements provided by you.

After compliance to all above recommendation the inspection of the same will be carried out by the representative of this office & after satisfactory inspection "Final No-Objection Certificate" will be issued.

The undersigned reserves right to amend any additional recommendations deemed fit during the final inspection due to the statutory provisions amended from time to time and in the interest of the protection of the company.

Thanking you.

Yours faithfully,

(M. V. Deshmukh)  
Chief Fire Officer & Fire Advisor  
MIDC, Mumbai-400 093

Copy submitted to the Chief Fire Officer & Fire Advisor, MIDC, Mumbai-93..

NO: MIDC/FIRE/FINAL-NOC/-

Date:

M/s.

Sub: Grant of "Final No Objection Certificate" for your construction factory building (Ground + First floor) as shown in the Drg. on plot No. \_\_\_\_\_ in \_\_\_\_\_, Indl. Area Industrial Area.....

Ref : i) Application received from Company Dated  
ii) This Office Provisional No-Objection Certificate No. MIDC/PROV-NOC/ Dated

Dear Sir,

With reference to the above, a representative of this office visited your factory on \_\_\_\_\_ to the above-mentioned address for inspection of fire fighting arrangements provided by you. Since the fire fighting arrangements provided by you were found in satisfactory working conditions this office is issuing a "Final No-Objection Certificate" for your factory building bearing built up area \_\_\_\_\_ Sqm. This certificate shall be treated valid for the period of one year from the date of issue i.e. up to \_\_\_\_\_. It is your responsibility to get the same renewed every year after inspection of fire fighting installation and arrangements provided for fire safety. The Fire fighting system provided by you in the factory premises as provisional No-Objection Certificate shall be well maintained & shall be kept in tip-top working condition at all the time.

As per office order No. MIDC/Fire Dept/ 1078 datd. 12/07/06. You have paid " Fire Protection & Scrutiny Fund Fees" of Rs. \_\_\_\_\_/- (Rs. \_\_\_\_\_ Only) vide receipt No. \_\_\_\_\_ datd. \_\_\_\_\_.

The conditions mentioned in the "Provisional No-Objection Certificate" will remain unchanged. The undersigned reserves right to amend any additional recommendations deemed fit during the stage wise inspection due to the statutory provisions amended from time to time and in the interest of the protection of the company. **If any change of Activity or Transfer of Plot or any future expansion No-Objection Certificate from this office is essential.**

Thanking you.

Yours faithfully,

(M.V. Deshmukh)  
Chief Fire Officer & Fire Advisor  
MIDC, Mumbai-400 093

Copy Submitted to the Chief Fire Officer & Fire Advisor, MIDC, Mumbai - 93..



# **Inspection Report Format for Provisional No-Objection Certificate and Final No-Objection Certificate.**

Sr. No.	Particulars	Remarks.
1.	Name of Company	
2.	Name of Industrial Area/ Plot Number	
3.	Date of Inspection	
4.	Name of Inspecting Authority	
5.	Plot Area in Sq. Meters	
6.	Plan Approval :- Obtained / Not Obtained if yes Existing Built up area	Sqm.
7.	BCC / Part BCC :- Obtained / Not Obtained if yes Existing Built up area.	Sqm.
8.	Proposed Built up area floor wise if yes Existing Built up area	Sqm. Sqm.
9.	Proposed Built up area with Free of FSI – Structure.	Sqm.
10.	Marginal Spaces as per DC Rules of MIDC and NBC-2005	Left Mtrs
		Right Mtrs.
		Rear Mtrs.
		Front Mtrs.
11.	Structures in Marginal Spaces	
12.	Approach Road for Fire Appliances	
13.	Number of Exits	
14.	Travel Distance	
15.	Main Entry Gate	Total Gates
		Gate Width
16.	Water Storage	Under ground
		Over Head
17.	Main Process Hazards	

Sr. No.	Particulars	Remarks.
18.	Storage :- Raw Material / Finish Goods Hazards	
19.	Fire Protection Provided (Existing arrangements if any)	
20.	<u>Details of Fire Extinguishers (List of Extinguishers with ISI Certification) Guidelines given in IS-2190</u>	
21.	Fire Hydrant System As per NBC-2005	
22.	Ring Hydrant System Number of Hydrant	
23.	Escape Hydrant System Number of Hydrant	
24.	Sprinkler / Spray System details for Basement & floor wise.	
25.	Fire Pump Details	
	Main Pump	
	Stand pump (Diesel Driven only)	
	Jockey Pump	
	Sprinkler Pump ( Only for Basement)	
26.	Transformer Protection :- Provided or Not Provided.	
27.	Area of Basement	
28.	Number of Exits Provided (If Staircase is directly terminating to the Basement Protected lobby provided or not.	
29.	Ramp provided for Car Parking	
30.	Travel Distance	
31.	Fire Protection System Provided	
32.	Use of Basement	
33.	Any other Observations	
34.	Any Other Approvals Obtained, Details of that	



**PROVISIONAL NO-OBJECTION CERTIFICATE  
BEFORE PLAN APPROVAL  
Required for All new constructions and  
proposed expansion or change in use or change in activity  
of the company.**

As per the provisions of Development Control Rules (D.C. Rules) of MIDC & part 3 and 4 of National Building Code -2005 it is mandatory to obtained Approval / No Objection Certificate from M.I.D.C. Fire Department- Mumbai. Now these powers are delegated to Concern Special Planning Authority for the plot area upto 3000 Sq. meteres. (Non Hazardous ) subject to following conditions :

- For all building below 15 meters
- Activity of the Factory/Company should be Non Hazardous like Engineering activity.
- Engineering shed and floor area less than 500 Sqm.
- Residential Building below 15 mtrs.

**The Check List as prescribed below should be followed;**

1. Application to the Special Planning Authorities from the Industries / Architects / Practicing Civil Engineers.
2. Layout / Block Plan showing position of Buildings, Internal Roads, and Storages etc. (wherever applicable).
  - a. Basement plans if any, with proposed uses.
  - b. Ground Floor Plan.
  - c. Each Floor Plans / Area
  - d. Machine Layout
  - e. Sectional Plan.
  - f. Elevation Plan & typical floor plan showing exits, fire escape Travel distance along the travel line. **As per the guidelines given in National Building Code-2005.**
  - g. Certificate of Architect's for Gross built-up Area **(Attached herewith)**
3. Brief note on activities of plant with process flow chart.
4. List of Raw material and Finish goods
5. Ventilation Plan of basement or in case of centralized A.C. or IT, BT and Pharmaceutical use.
6. Brief Note on the Fire Prevention & Fire Protection measures proposed by the company.
7. Approvals given by MPCB, Chief Controller of Explosive, Nagpur for storage of petroleum products
8. The Architect shall certify the plans, that the drawings are confirming with the provisions of D.C. Rules of MIDC & provisions of NBC wherever necessary.

**THE PLANS SHOULD BE INCORPORATED WITH**

The plans also should be incorporated with following information: -

- a. Block Plan of company should give the details of main entrance, other entrance to plot, surrounding of plot like any other company, road etc. Basement/Sub-Basement if any (purpose use of Basement) **Marginal spaces (As per DC Rules)** , approach roads around the plant buildings.
- b. Access to fire appliances / vehicles with details of vehicular turning circle and clear motor able access way around the building.
- c. Size (width) of main, alternate and fire escape staircases along with the balcony approach, corridor, ventilated lobby approach;

- d. Location of centralized control, connecting all fire alarms, built-in fire protection arrangements and public address systems, etc.
- e. Location and dimension of underground water storage tank and pump room along with fire service inlets for mobile pump and capacity of water storage tank;
- f. Location and details of fixed fire protection installation such as sprinklers, wet risers cum down comer, hose reels, drenchers, carbon-dioxide (co2) installations, foam installations etc;
- g. Location and details of first aid and fire fighting equipment / installation;
- h. Location and details of lift enclosures. Details of Fire Lift if provided.
- i. Location and size of fire lift;
- j. Smoke protected lobby, Fire door, where provided; (for Basement)

#### **For such Buildings following conditions shall apply :**

- Proper roads in the premises should be provided & marked on ground for easy mobility of the Fire Brigade Appliance as per the guidelines given in DC Rules of MIDC, should be kept free from obstructions all the time. The load bearing capacity of internal roads must be minimum 45 Tones. The encroachment in the Fire Lane will be treated as serious offence as per the Provisions of new Maharashtra Fire Prevention & Life Safety Measures Act-2006.
- Construction of the building should be as per the guidelines given in IS standards given below. **The certificate to that effect should be taken from the architect or company.**
  - a. Code of practice for Fire Safety Buildings IS-1642 – for Details of Construction.
  - b. Code of Practice of Fire Safety of Buildings IS-1643 – Exposure Hazard.
  - c. Code of Practice of Fire Safety of Buildings IS-1644 – Exit requirement and Personal Hazard.
  - d. Code of practice for Fire safety Buildings IS :1646- Electrical Installations

The Certificate should be furnished at the time of applying for Final N.O.C., for above relevant standard from the Architect / Structural Engineer.

#### **GUIDELINES FOR INTERNAL STAIRWAYS as per NBC 2005**

- a) Stairways shall be constructed of non-combustible materials throughout. Hollow combustible construction shall not be permitted. Width of Staircase should be 1.5 M.
- b) No Gas piping shall be laid down in the stairway.
- c) Internal staircase shall be constructed as a self-contained unit with at least one side adjacent to an external walls and shall be completely enclosed.
- d) Internal staircase shall not be arranged around lift shaft unless the later is entirely enclosed by material of fire resistance rating as that for type of construction itself.
- e) The access to main staircase shall be gained through at least half-an-hour fire resisting automatic closing doors, placed in the enclosing walls of the staircase. They shall be swing type doors opening in the direction of the escape.
- f) No living space, store or other space, involving fire risk, shall open directly in to staircase.



- g) The external exit door of a staircase enclosure at ground level shall open directly to the open space or should be accessible without passing through any door other than a door provided to form a draught lobby.
- h) The exit signs with arrows indicating the escape routes shall be provided at a height of 1.5 m. from the floor level on the wall and shall painted with fluorescent paint. All exit signs should be flush with the wall and so designed that no mechanical damage to them can result from the removing furniture, material or any other equipment.
- i) Exits shall be so located that it will not be necessary to travel more than 30 m. from any point to reach the nearest exit.
- j) The travel distance should be calculated from farthest point to nearest exit or staircase along the line of travel. The details are given as below :-

Sr. No.	Group of Occupancy	Maximum travel distance for Type 1 & 2 construction i.e 3 to 4 hours fire resistance	Maximum travel distance for Type 1 & 2 construction i.e 1 to 2 hour fire resistance
1.	Residential (A)	30.0	22.5
7.	Industrial (G)	45.0	Not permitted

**FIRE ESCAPE: (ENCLOSED TYPE ) SHALL COMPLY THE FOLLOWING: -**

1. Travel Distance should be maintained as per the guidelines given in NBC 2005. Exits and staircase guidelines should be followed as per MIDC's DC Rules and National Building Code-2005
2. Fire escape constructed of M.S. angels is not permitted.
3. Opening of the Fire Escape Staircase should be from outside.
4. Fire Escape staircase should be enclosed type. These should always be kept in sound operable condition .
5. Exits door shall open outwards, that is away from the room, but shall not obstruct the travel along any exit.
6. Fire Escape Staircase shall be directly connected to the ground.
7. Entrance to the Fire Staircase shall be separate and remote from the internal staircase.
8. Care shall be taken to ensure that no wall opening or window opens on to or close to Fire Escape Stairs.
9. The route to the external staircase shall be free of obstructions at all times.
10. The Fire Escape stairs shall be constructed of non-combustible materials, and any doorway leading to it shall have the required fire resistance.
11. No Staircase, used as a fire escape, shall be inclined at an angel greater than 45° from the horizontal.
12. The width of the staircase should as given in DC Rules of MIDC. The other detailed provision for exits in accordance with National building code - 2005.
13. Fire Staircase shall have straight flight not less than 125 c.m. wide with 20 c.m. treads and risers not more than 19 c.m. The number of risers shall be limited to 15 per flight.
14. Handrails shall be of a height not less than 100 c.m. and not exceeding 120 c.m.

### **Staircase Design requirement:**

1. The minimum headroom in a passage under the landing of a staircase and under the staircases shall be **2.2 Mtrs.**
2. Access to main staircase shall be through a fire / smoke check door of a minimum 2 hours fire resistance rating.
3. No living space, store or other fire risk shall open directly in to the staircases.
4. The main and external staircases shall be continuous from ground floor to the terrace level.
5. No electrical shafts, A/c ducts or gas pipe etc. shall pass through or open in the staircases. Lifts shall not open in staircases.
6. **All the staircases shall be provided with mechanical Pressurization devices, which will inject the air in to staircase, lobbies or corridors to raise their pressure slightly above the pressure in adjacent parts of the building so the entry of toxic gases or smoke in to the escape routes is prevented.**

### **Staircase Enclosures :-**

1. The external enclosing walls of the staircase shall be of the brick or the RCC construction having the fire resistance of not less than two hours. All enclosed staircases shall have access through self closing door of one hour fire resistance. These shall be single swing doors opening in the direction of escape. The door shall be fitted with the check action door closers.
2. The staircase enclosures on the external wall of the building shall be ventilated to the atmosphere at each landing.
3. Permanent vent at the top equal to the 5% of the cross section area of the enclosure and openable sashes at each floor level with area equal to 1 to 15 % of the cross sectional area of the enclosure on external shall be provided. The roof of the shaft shall be at least 1 meter above the surrounding roof. There shall be no glazing or the glass bricks in any internal closing wall of staircase. If the staircase is in the core of the building and cannot be ventilated at each landing a positive pressure of 5 mm w.g. by an electrically operated blower/ blowers shall be maintained.
4. The mechanism for pressurizing the staircase shaft shall be so installed that the same shall operate automatically on fire alarm system/ sprinkler system and be provided with manual operation facilities.

### **Illumination of Means of Exit :-**

Staircase and corridor lights shall conform to the following :-

- a) The staircase and corridor lighting shall be on separate circuit and shall be independently connected so that it could be operated by one switch installation on the ground floor easily accessible to fire fighting staff at any time irrespective of the position of the individual control of the light points, if any. It should be of miniature circuit breaker type of switch so as to avoid replacement of fuse in case of crises.
- b) Staircase and corridor lighting shall also be connected to alternative supply. The alternative source of supply may be provided by battery continuously trickle charged from the electric mains; and
- c) Suitable arrangements shall be made by installing double throw switches to ensure that the lighting installed in the staircase and the corridor does not get connected to two sources of supply simultaneously. Double throw switch shall be installed in the service room for terminating the same by supply.



#### **STAIRCASE AND CORRIDOR LIGHTINGS:**

- a) The staircase and corridor lighting shall be on separate service and shall be independently connected so as it could be operated by one switch installation on the ground floor easily accessible to fire fighting staff at any time irrespective of the position of the individual control of the light points, if any.
- b) Staircase and corridor lighting shall also be connected to alternate source of supply.
- c) Suitable arrangements shall be made by installing double throw switches to ensure that the lighting installed in the staircase and the corridor do not get connected to the sources of supply simultaneously. Double throw switch shall be installed in the service room for terminating the stand by supply.
- d) Emergency lights shall be provided in the staircase/corridor.
- e) Passageway should be provided as per the guidelines given in National Building Code- 2005.

#### **GUIDELINES FOR PLANT AREA:**

- Portable fire fighting equipments should be installed at various locations as shown at the time of inspection, such as Co2-DCP, Foam, Fire buckets should be strictly confirming to relevant IS specification. All the fire fighting equipments shall be well maintained and should be easily accessible in case of emergency.
- "Fire Extinguisher", "Fire Bucket" "Danger" "No Smoking" caution boards should be displayed at the places physically shown & the caution boards should be easily visible and as per the guidelines given in IS:9457, IS:12349 and IS:12407.
- The house keeping shall be well maintained within the entire plant area.

#### **CANTEEN AREA (LPG Storage) :**

- If L.P.G. is used for cooking purpose in canteen the L.P.G. pipelines & fittings & accessories used shall be strictly confirming to IS: 6044 Part-I. The L.P.G. pipeline & related installation shall be done by reputed and authorized agency. The agency shall issue a certificate that the work is carried out as per IS: 6044 Part-I.
- The L.P.G. storage area shall be provided with a separate shed painted in "RED" colour, "Danger" "No-Smoking" signs shall be painted on the door of L.P.G. shed. The shed should be always kept in lock and key & the key of the L.P.G. shed shall be kept with responsible person of the company.
- Minimum Two Exits should be provided diagonally opposite to each other and minimum two staircases diagonally opposite shall be provided to approach first floor of the canteen building.
- 4 Nos. of DCP Fire Extinguishers of 50 Kgs each should be provided near LPG Battery.

#### **BASEMENT PROVISION :**

The basement shall not be used for residential purposes.

- The provisions specified under the Development Control Rules should be followed.
- The basement to be constructed within the building envelope and subject to maximum coverage on floor 1 (entrance floor) may be put to only the following uses:
  - a. Storage of household or other goods of ordinarily non- combustible material;
  - b) Strong rooms, bank cellars, etc;

- c) Air-conditioning equipment and other machines used for services and utilities of the building, and
- d) Parking spaces.

The basement shall have the following requirements:-

- a) Every basement shall be in every part at least 2.4 m in height from the floor to the underside of the roof slab or ceiling;
- b) Adequate ventilation shall be provided for the basement. The ventilation requirements shall be the same as required by the particular occupancy according to byelaws. Any deficiency may be met by providing adequate mechanical ventilation in the form of blowers, exhaust fans air-conditioning systems, etc;
- c) The minimum height of the ceiling of any basement shall be 0.9 m and the maximum 1.2 m above the average surrounding ground level.
- d) Adequate arrangements shall be made such that surface drainage does not enter the basement.
- e) Automatic Sprinkler system should be provided for the Basement area.
- f) Dewatering system should be provided for the Basement.
- g) Fire Doors should be provided for the Basement opening.
- h) Separate Ramp should be provided for IN and OUT entry.

The walls and floors of the basement shall be watertight and be so designed that the effects of the surrounding soil and moisture, if any, are taken into account in design and adequate damp proofing treatment is given; and The access to the basement shall be separate from the main and alternative staircase providing access and exit from higher floors. Where the staircase is continuous in the case of buildings served by more than one staircase, the same shall be of enclosed type serving as a fire separation from the basement floor and higher floors.

**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.

#### **AIR-CONDITIONING:**

- a) Escape routes like staircases, common corridors, lift lobbies etc. shall not be used as return air passage.
- b) The ducting shall be constructed for substantial gauge metal in accordance with IS: 655-1963 (Revised).
- c) Wherever the ducts pass through firewalls or floors, the opening around the ducts shall be sealed with fire resisting materials such as asbestos rope, vermiculite concrete, glass wool etc.
- d) As far as possible, metallic ducts shall be used even for the return air instead of space above false ceiling.
- e) The materials used for insulating the duct system (inside or outside) shall be non-combustible material such as glass wool etc.
- f) The fire dampers shall be capable of operating manually.



- g) Air ducts serving main floor areas corridors etc. shall not pass through the stair well.

Air-conditioning shall conform to the following:

- a) Escape routes like staircases, common corridors, lift lobbies, etc. shall not be used as return air passage.
- b) The ducting shall be constructed of substantial gauge metal in accordance with good practice {4.31}.
- c) Wherever the ducts pass through fire walls or floors, the opening around the ducts shall be sealed with materials having fire resistance rating of the compartment.
- d) Where duct crosses a compartment which is fire rated, the ducts shall be fire rated for same fire rating. Further depending on services passing around the duct work, which may get affected in case of fire temperature rising, the ducts shall be insulated.
- e) As far as possible, metallic ducts shall be used even for the return air instead of space above the false ceiling.
- f) Where plenum is used for return air passage, ceiling and its fixtures shall be of non-combustible material.
- g) The material used for insulating the duct system (inside or outside) shall be of non-combustible materials. Glass wool shall not be wrapped or secured by any material of combustible nature.
- h) Area more than 750m<sup>2</sup> on individual floor shall be segregated by a fire wall and automatic fire dampers for isolation shall be provided [see (j)].
- j) Air ducts serving main floor areas, corridors, etc. shall not pass through the staircase enclosure.
- k) The air-handling units shall be separate for each floor and air ducts for every floor shall be separated and in no way inter-connected with the ducting of any other floor.
- l) If the air-handling unit serves more than one floor, the recommendations given above shall be complied with in addition to the conditions given below:
  - 1) proper arrangements by way of automatic fire dampers working on smoke detector/or fusible link for isolating all ducting at every floor from the main riser shall be made.
  - 2) When the automatic fire alarm operates, the respective air-handling units of the air conditioning system shall automatically be switched off.
- m) The vertical shaft for treated fresh air shall be of masonry construction.
- n) The air filters of the air-handling units shall be of non-combustible materials.
- o) The air-handling unit room shall not be used for storage of any combustible materials.
- p) Inspection panels shall be provided in the main trunking to facilitate the cleaning of ducts of accumulated dust and to obtain access for maintenance of fire dampers.
- q) No combustible material shall be fixed nearer than 150 mm to any duct unless such duct is properly enclosed and protected with non-combustible material (glass wool or spun glass with neoprene facing enclosed and wrapped with aluminum sheeting) at least 3.2 mm thick and which would not readily conduct heat.
- r) Fire Dampers  
These shall be located in conditioned air ducts and return air ducts/passages at the following points:

At the fire separation wall.

- i) Where ducts/passages enter the central vertical shaft.
- ii) where the ducts pass through floors.
- iii) At the inlet of supply air duct and the return air duct of each compartment on every floor.

The dampers shall operate automatically and shall simultaneously switch off the air-handling fans. Manual operation facilities shall also be provided.

**NOTE-** For blowers, where extraction system and duct accumulators are used, dampers shall be provided.

#### **GUIDELINES FOR RAW MATERIAL STORE/GODOWN :-**

1. The storage in godown should be in a systematic way proper roads should be marked by "Yellow" colour & should be kept free of obstruction all the time.
2. The maximum stacking height should be marked on the walls in RED colour. The stacking height should not be more than the red line. Red line should be marked on 1.5 mtrs. from lowest roof level.
3. All electrical fitting, fixtures should be flameproof & conforming to relevant IS. All electrical wiring, fitting & fixture should be above the red line (stacking limit line)
4. The indication mark like Exits, Fire Escape, etc. should be prominently marked with florescent paint so that it can be seen in darkness.

#### **ELECTRICAL SERVICES:**

1. For the requirements regarding installations from the point of view of Fire Safety, guidelines should be followed as mentioned in IS Standard :1646 Code of practice for Fire safety Buildings : Electrical Installations.
2. The electric distribution cables/wiring shall be laid in separate duct. The duct shall be sealed at every alternate floor with non-combustible materials having same fire resistance as that of the duct.
3. Water mains, telephone lines, intercom lines, gas pipes or any other service lines shall not be laid in the duct of electric cables.
4. Separate circuits for water pumps, staircase & corridor lighting shall be provided directly from the main switch gear panel and these circuits shall be laid in separate conduit pipes so that fire in one circuit will not affect the others.
5. The inspection panel doors and any other opening in the shaft shall be provided with air tight doors having fire resistance of not less than 2 hrs.
6. Medium & low voltage wiring running in shaft and within fall ceiling shall run in metal conduit.
7. An independent & well-ventilated service room shall be provided on the ground floor with direct access from outside or from the corridor for the purpose of termination of electric supply. The doors provided for the service room shall have fire resistance of not less than two hours.

#### **GUIDELINES AS PER NBC PART-IV FOR TRANSFORMERS INSTALLED:**

1. Transformers shall not be installed on upper floors.
2. The switchgears shall be housed in a separate room separated from the transformer bays by a fire-resisting wall with fire resistance of not less than four hours.
3. The transformers shall be protected by providing proper fire protection.
4. A tank of RCC construction of capacity capable of accommodating entire oil from the transformers shall be provided at lower level, to collect the oil from the catch pit to the tank shall be of non-combustible construction and shall be provided with a flame-arrestor.
5. No grass or shrubs shall be allowed to grow in transformer switchyard.



6. A barbed wired fencing of minimum 1.5 m. height shall be provided around transformer switchyard & the gate shall be provided for entrance. The gate should be always locked & the keys should be kept with authorized/responsible person of the company.
7. **Danger/ No smoking** board shall be displayed at the entrance gate of transformer switchyard.
8. When housed inside the building, the transformer shall be of dry type and shall be cut off from the other portion of premises by walls/doors/cutout having fire resistance rating of 4 hrs.

In addition to the above, all provision under the D.C. Rules of MIDC and N.B.C. shall be strictly adhered.

OTHER FIRE FIGHTING INSTALLATION AND WATER STORAGE DETAILS PLEASE REFER TABLE – 23 OF NATIONAL BUILDING CODE – 2005. WHICH IS ENCLOSED HEREWITH FOR READY REFERENCE, PLEASE.

(See Section 3 (I))

(Clauses 4.18.2, 6.1.2, 6.2.3, 6.3.2, 6.4.3, 6.5.2, 6.5.2.1, 6.5.2.2, 6.5.2.3, 6.5.2.4, 6.5.2.5, 6.6.2, 6.7.2, 6.8.2 and 6.9.2)

[illegible]



Sr. No.	Type of Building Occupancy	Type of Installation										Water Supply (in litres)		Pump Capacity (in litres)	
		Fire Extinguisher	Hose Reel	Dry Riser (see Note 8)	Wet Riser	Down Corner	Yard Hydrant	Automatic Sprinkler System	Manually Operated Electric Fire Alarm System	Automatic Detection and Alarm System	Under-ground Static Water Storage Tank	Terrace Tank	Pump Near Underground Static Water Storage Tank (Fire Pump) with Minimum Pressure of 3.5 kg/cm <sup>2</sup> at Terrace Level	At the Terrace Tank Level with Minimum Pressure of 2.0 kg/cm <sup>2</sup>	
(c)	Dormitories (A-3) Apartment Houses (A-4)														
(1)	Less than 15 m in height	R	R	NR	NR	NR	NR	R (see Note 2)	NR	NR	NR	5000 (5000)	NR	450 (450)	(See Note 4)
EDUCATIONAL BUILDINGS (B) (see Note 12)															
(1)	Less than 15m in height														
	(i) Ground plus one storey	R	NR	NR	NR	NR	NR	R (see Note 2)	NR	NR	NR	5000 (see Note 3)	NR	450 (see Note 3)	
	(ii) Ground plus two storeys	R	R	NR	NR	NR	NR	R (See Note 2)	NR	NR	NR	10000 (5000)	NR	450 (450) (see Note 4)	
INSTITUTIONAL BUILDINGS (C) (see Note 12)															
(a)	Hospitals, Sanatoria and Nursing Homes (C-1)														
(1)	Less than 15 m in height														
	(i) Up to ground plus with no beds	R	R	NR	NR	NR	NR	R (see Note 2)	R	NR	NR	2500 (2500) (see Note 4)	NR	NR	
	(ii) Up to ground plus one storey with beds	R	R	NR	NR	R	NR	R (see Note 2)	R	NR	NR	5000 (5000) (see Note 4)	NR	450 (450) (see Note 4)	
	(iii) Ground plus two or more storeys, with no beds	R	R	NR	NR	R	NR	R (see Note 2)	R	R	NR	5000 (5000) (see Note 4)	NR	450 (450) (see Note 4)	

Sr. No.	Type of Building Occupancy	Type of Installation										Water Supply (in litres)		Pump Capacity (in litres)	
		Fire Extinguisher	Hose Reel	Dry Riser (see Note 5)	Wet Riser	Down Comer	Vertical Hydrant	Automatic Sprinkler System	Manually Operated Electric Fire Alarm System	Automatic Detection and Alarm System	Underground Static Water Storage Tank	Terrace Tank	Pump Near Underground Static Water Storage Tank (Fire Pump) with Minimum Pressure of 3.5 Kg/cm <sup>2</sup> at Terrace Level	At the Terrace Tank Level with Minimum Pressure of 2.0 Kg/cm <sup>2</sup>	
(iv)	Ground plus two or more storeys with beds	R	R	NR	R	NR	NR	R (see Note 2)	R	R	50000	5000 (5000) (see Note 4)	(see Note 19)	NR	
(2)	Less than 15m in height with plot area more than 1000m <sup>2</sup>	R	R	NR	R	NR	R	R (see Note 2)	R	R	100000	10000	(see Note 19)	NR	
<b>INDUSTRIAL BUILDINGS (G) (see Note 14)</b>															
(a)	Low Hazard (G-1) (see Note 15)														
	(i) Built up area up to 100m <sup>2</sup>	R	NR	NR	NR	NR	NR	R (see Note 2)	NR	NR	NR	5000 (see Note 3)	NR	450 (see Note 3)	
	(ii) Built up area more than 100m <sup>2</sup> and up to 500 m <sup>2</sup>	R	R	NR	NR	R	NR	R (see Note 2)	NR	NR	NR	5000 (5000) (see Note 4)	NR	450	

R = Required

NR = Not Required

#### NOTES

- Building above 15m in height not to be permitted for occupancies A-1 and A-2
- Required to be installed in basement if area of basement exceeds 200 m<sup>2</sup>.
- Required to be provided if basement area exceeds 200 m<sup>2</sup>
- Additional value given in parenthesis shall be added if basement area exceeds 200 m<sup>2</sup>.
- Required to be provided for buildings with more than two storeys (Ground + One).
- As per the requirement of local authority Dry Riser may be used in hilly areas, industrial areas or as required.
- Required to be provided for buildings with height above 15m.



8. To be installed in basement. If basement provided is used for car parking and area thereof exceeds 750 m<sup>2</sup> then the sprinklers shall be fed water from both underground static water storage tank and terrace tank.
9. Required to be provided for buildings with more than one storey.
10. To be installed in entire building.
11. To be installed in all floors at appropriate places and in consultation with local fire authorities.
12. Buildings above 30 m in height not to be permitted for Group B, Group C, Group D and Group F occupancies.
13. All underground shopping areas should be fully air conditioned.
14. The requirements given in this table for Group G Industrial Buildings are for small scale industry units. For other industries the requirements will have to be worked out on the basis of relevant Indian Standards and also in consultation with the local fire authorities.
15. Buildings above 15m in height not to be permitted for G-3 occupancies.
16. Buildings above 15m in height not to be permitted for Group H and Group J occupancies.
17. Pump capacity shall be based on the covered area of the building.
18. One electric and one diesel pump of capacity 1620 l/min and one electric pump of capacity 180 l/min (see Fig 4).
19. One electric and one diesel pump of capacity 2280 l/min and one electric pump of capacity 180 l/min (see Fig 4).
20. Two electric and one diesel pump of capacity 2280 l/min and one electric pump of capacity 180 l/min (see Fig 5).
21. Two electric and one diesel pump of capacity 2850 l/min and one electric pump of capacity 180 l/min (see Fig 5).

#### ANNEXURE - IV

The jurisdiction of the Divisional Fire Officers will be as under:

Sr.No.	Name of the Divisional Fire Officer	Jurisdiction
1.	Divisional Fire Officer (Ngp)	Vidarbha Region
2.	Divisional Fire Officer (Pune)	PMR, & Aurangabad Region.
3.	Divisional Fire Officer (Head Office)	MMR, Nashik & Konkan Region

The jurisdiction of the Fire Officers will be as under and as per the directives given by concern Divisional Fire Officer of the respective Region:

Sr. No.	Fire Officer	Jurisdiction / Indl. Area.
1.	Fire Officer (HQ)	Marol, TTC, Wagle estate
2.	Fire Officer, Ambemath	Ambemath, Badlapur, Murbad, Kalyan-Bhiwandi, Dombivli.
3.	Fire Officer, Taloja	Taloja, Patalganga,
4.	Fire Officer, Roha	Roha, Mahad
5.	Fire Officer, Lote Parshuram	Lote Parshuram, Kherdi-Chiplun, Gane-khadpoli, Dapoli, Ratnagiri, Kudal.
6.	Fire Officer, Tarapur	Tarapur and in charge of all vehicles.
7.	Fire Officer, Hinjewadi	Pimpri Chinchwad, Hinjewadi, Bhosari, Chakan, Satara & Addl.Satara, Jujuri, Kolhapur, Gokul-Shirgaon & Shirol, Kagal, Hat-Kanangale, Sangli-Miraj
8.	Fire Officer, Ranjangaon	Ranjangaon, Ahmednagar, Shrirampur, Supa-pamer, Kurkumbh, Baramati, Bhigwan
9.	Fire Officer Waluj	All Indl. Areas in Aurangabad Region.



प्रति,

- १) आयुक्त,  
सर्व महानगरपालिका
- २) मुख्याधिकारी,  
सर्व नगरपालिका
- ३) आयुक्त,  
महाराष्ट्र मुंबई क्षेत्रविकास प्राधिकरण, बांद्रा-पूर्व, मुंबई
- ४) व्यवस्थापकीय संचालक,  
सिडको, नवी मुंबई
- ५) सभापती,  
नागपूर सुधार प्रन्यास, नागपूर
- ६) मुख्य कार्यकारी अधिकारी,  
महाराष्ट्र औद्योगिक विकास महामंडळ, अंधेरी, मुंबई.

मंत्रालयात महापालिका आयुक्तांची बैठक आयोजित केली होती. सदर बैठकीत अग्नि प्रतिबंधक उपाययोजना करण्यासाठी खालीलप्रमाणे कार्यवाही करण्याचे ठरले.

- १) महाराष्ट्र अग्नि प्रतिबंधक व सुरक्षितता विधेयकाचे प्रारूप अग्रक्रमाने तयार करणे.
- २) बांधकामाची परवानगी देताना महापालिकेने इमारतीत प्रत्येक मजल्यावर अग्निरोधक यंत्रणा, आग विझविण्यासाठी २४ तास पुरेशा प्रमाणात पाणी साठविण्याची टाकी बांधली आहे याची खात्री करावी. आपत्कालीन अग्निशामक वाहने येऊ शकतील इतक्या रुंदीचे रस्ते ( Access & Approach road) असावेत. १५ मिटर पेक्षा उंच इमारती हायराईज स्ट्रक्चर समजावे.
- ३) भारतीय प्रमाणक संस्था ( ब्युरो ऑफ इंडियन स्टॅण्डर्ड ) नवी दिल्ली यांनी विहित केलेल्या राष्ट्रीय बांधकाम संहिता भाग-४ मधील सर्व तरतुदींची सर्व महानगरपालिका / नगरपालिका / नगरपरिषदा व महाराष्ट्र प्रादेशिक नगर रचना प्राधिकरण, १९६६ नियम ४०-अ (Maharashtra Region & Town Planning Act, १९६६) मधील तरतुदीनुसार शासनाने जाहिर केलेली विशेष प्राधिकरणे यांनी सर्व प्रकारच्या औद्योगिक, वाणिज्य, शैक्षणिक संस्थांच्या इमारती, त्याप्रमाणे निवासी हॉटेल्स व उपहारगृहे, सार्वजनिक ठिकाणी लोक एकत्र येण्याची ठिकाणे म्हणजेच मोठे सभागृह, चित्रपटगृहे, शॉपिंग मॉल, शासकीय निमशासकीय

letter-26,

रोटा/एच-७७५(४००-१२-०४) - १

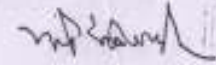
(कृ. मा. य.)

इमारती, रुग्णालये व इतर संवेदनाशील इमारती व १५ मीटर पेक्षा उंच निवासी इमारत यांच्या बाबतीत सदर राष्ट्रीय बांधकाम संहिता भाग-४ मधील सर्व तरतुदीची काटेकोरपणे अंमलबजावणी करावी.

०२. सोबत राष्ट्रीय बांधकाम संहिता भाग-४ च्या प्रती सुलभ संदर्भासाठी जोडल्या असून नागरिकास समाजाच्या सुरक्षिततेच्या दृष्टीतून या संहितेतून तरतुदीची सर्व संबंधितांनी अंमलबजावणी करणे आवश्यक आहे.

०३. या आदेशांचे पालन करताना काही त्रुटी, अडचणी असल्यास त्यासंबंधी आवश्यक त्या तांत्रिक सल्ल्यासाठी अग्निशमन सल्लागार, महाराष्ट्र शासन, राज्य अग्निशमन प्रशिक्षण केंद्र, विद्यानगर सांताक्रुझ-पूर्व, मुंबई-४०० ०९८ (फॅक्स क्र. २६६७०८१९) यांचेशी संपर्क साधावा.

सहपत्र-१



(म.दि.आडिवरेकर)  
शासनाचे उप सचिव

प्रत सहपत्रासह माहितीसाठी व योग्य त्या कार्यवाहीसाठी अग्रेषित :

- १) संचालक, नगरपालिका प्रशासन संचालनालय, वरळी, मुंबई-२५
- २) अग्निशमन सल्लागार, महाराष्ट्र राज्य, सांताक्रुझ-पूर्व, मुंबई-९३