

GOVERNMENT OF MAHARASHTRA

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Directorate of Maharashtra Fire Service
Maharashtra Fire Service Academy ,Vidyanagri,
Hans Bhugra Marg,Santacruz (East),Mumbai – 400 098

M/s. Shree Dutt India Pvt. Ltd.,
G.No.69&74,
At Pimpalwadi (Sakharwadi),
Tal : Phaltan,
Dist- Satara.

**Sub: Grant of “Provisional No-Objection Certificate”
for proposed Industrial Factory Building M/s. Shree Dutt
India Pvt. Ltd.,G.No.69&74,At Pimpalwadi (Sakharwadi),Tal :
Phaltan, Dist- Satara.**

**Ref : 1.Online Application No. PUN/01/12/2020/0016, dated 01.12.
2020.**

This is a proposal for Industrial Factory building having various plants, machineries and distillation columns. The plot area is **188800.00 sq.mtr** and the built up area is **20554.49 Sq. Mtrs.** The site abuts on state highway and 12 mtrs wide Internal roads and same shall be verified by the concern Town Planning authorities of Municipal Council and if min 12 mtrs wide approach road is not provided then this NOC shall be considered as cancelled. The architect and chief promoter has stated that there is no human habitation above 18 mtrs of height at any of the building, distillation column etc. and the open spaces and the travel distance are provided as per the norms.

This NOC is valid subject to fulfillment of following condition:-

Provisions of Maharashtra Fire Provision and Life Safety Measures Act, 2006.

1. Under **Section 3** of **Maharashtra Fire Prevention and Life Safety Measures Act, 2006** (hereinafter referred to as “said Act”) The applicant (developer, owner, occupier by whatever name called) shall comply with all the Fire and Life Safety measures adhering to National Building Code of India, 2005 and as amended from time to time failing which it shall be treated as a violation of the said Act.
2. As per the provision as **under :- 10** of the said Act. No person other than the License Agency shall carry out the work of providing Fire Prevention and Life Safety Measures or performing. Such other related activities required to be carried out in any place or building or part thereof: Provided that,
 - a. No Licensed Agency or any other person claiming to be such Licensed Agency shall give a certificate under **sub-section (3)** of **section 3** regarding the compliance of the fire prevention and life safety measures or maintenance thereof in good repair and efficient condition, without there being actual such compliance or maintenance.
 - b. The names of the License Agencies approved by Directorate of Maharashtra is available in our website www.mahafireservice.gov.in
3. Though certain conditions are stipulated from the said Act and the National Building Code of India, it is obligatory on part of the applicant that is developer, builder, occupier, owner, tenant, by what so ever named called to

abide with the provisions of the said Act failing which it shall be actionable under the provisions of said act.

4. The plans of the building should be approved by the competent Authority.
5. The building & drainage completion certificate should be obtained from The competent authority. **The B.C.C. shall be issued subject to “Final No-Objection Certificate” from this Department.**
6. Proper roads in the premises should be provided for easy mobility of the Fire Brigade Appliance & the roads should be capable to hold weight of fire appliances i.e. **45 tons. The width of the road shall not be less than 6.0 Mtrs.**
7. All portable fire fighting equipments installed at various locations as per local hazard such as Co2-DCP, Foam, Fire buckets & it must be strictly confirming to relevant IS specification.
8. All the fire fighting equipments shall be well maintained and should be easily accessible in case of emergency.
9. Emergency Telephone numbers like **“Police”, “Fire Brigade”, “Hospital”, “Doctors”,** and **“Responsible persons of the complex”** should be displayed in security cabin & at other strategic locations.
10. It shall be ensured that security staff & every employee of the complex are trained in handling fire fighting equipment & fire fighting.
11. Cautionary boards such as **"DANGER", "NO SMOKING", "EXIT", "FIRE ESCAPE", "EXTINGUISHER",** etc. should be displayed on the strategic location to guide the occupants in case of emergency. The signs should be of florescent type and should glow in darkness.
12. **In future if the plant intends to go for any expansion, alteration, modification of any building an approval of this department must be obtained before commencing proposed construction.**
13. **It shall be your responsibility to obtain all necessary approvals from various government agencies such as MPCB, NA, Environment, CCOE, Excise etc as per the requirement, as applicable.**

REQUIREMENT AND PROVISION: - The following Fire Protection System is required for the fire safety of the building:-

Sr. No.	FIRE FIGHTING INSTALLATION	Requirements	Provision	Remarks
1.	Portable Fire Extinguishers	Required		As per IS: 15683.
2.	Hose Reel	Required at prominent places.		The first aid hose reel shall be connected directly to Hydrant Line and diameter of the hose reel shall not be less than 19mm confirming to <u>IS 884:1985</u>
3.	Wet Riser	Required	At strategic locations	Required to provide in the Staircase and Fire Escape Staircase. Landing of Valve should be installed confirming to IS:5290.
4.	Yard Hydrant or	Required	At Various	Fire Brigade Inlet connection

Sr. No.	FIRE FIGHTING INSTALLATION	Requirements	Provision	Remarks
	Ring hydrant around the building		strategic Locations.	should be provided. Hydrant points should be provided with 2 Nos. of Delivery Hose confirming to IS-14933-2001 along with Standard Branch (Universal) confirming to IS-2871. The distance between 2 Hydrants should not be more than 45 mtrs. The guidelines should be followed as per IS 3844:1989.
5.	Manually Operated Fire Alarm system	Required	At Various location	Manually Operated Fire Alarm should be provided; it should be connected to alternate power supply.
6.	Underground Static Storage Tank	Required 4,00,000 liters.		This water storage should be used exclusively for Fire Fighting.
7.	Fire Pump	02 No. 4250 lpm (main + stand by) electrical driven 01 No. 4250 lpm Diesel driven (if Alternate source of Power supply not provided.) 01 No. 180 lpm electric driven 1 Nos. 450 lpm electric driven (Booster Pump)		Fire Fighting pumps shall be well maintained. Fire pumps shall be centrifugal pumps only. Booster pump should be provided on each terrace.
8.	Fire Brigade Connection- For Static Water Tank and For Hydrant System	Required at the Main Gate.		
9.	Sign Indicators for all fire safety, safe evacuation of occupants in case of emergency signs	Required at Prominent Places.	Sign indicators should provided at prominent places as per the guidelines given in IS:9457 for Safety colour and Safety IS:12349 for Fire Protection Safety Signs IS:12407 for Graphics symbols for Fire Protection Plan.	
10.	Automatic Smoke Detection System	Required for Storage, Go-downs, Office building.	Automatic Smoke Detection system should be provided. Standards and guidelines given in IS-11360-1985 specification for Smoke Detectors for use in Automatic Electrical Fire Alarm	

Sr. No.	FIRE FIGHTING INSTALLATION	Requirements	Provision	Remarks
				system. <u>Detection system for Cable Trench should be provided.</u> Heat Detectors should be provided for Canteen Area as per the standards and guidelines given IS-2175-1988 specification for Heat sensitive Fire Detectors for use in Automatic Fire Alarm System.
1	Automatic Sprinkler system	Required for Storage, Go-downs, Office building.		Sprinkler system should be provided on each Building Guidelines are given in IS 15105 Design and installation of Fixed Automatic sprinkler fire Extinguishing system.
	Foam pourer/Canon/ MVL R monitors	Tank Farm area, Distillation unit area etc.		Shall be provided as per NFPA 22, NFPA 30.

Note: Fix fire fighting installations such as risers, hydrant connections, hose reels etc. shall be provided in separate shaft having opening at floor level with Glass cabinet having locking arrangement to avoid theft and damage.

ALTERNATE SOURCE OF POWER SUPPLY.

An alternate source of LV/HV supply from a separate substation or from a diesel generator with appropriate changeover over switch shall be provided for fire pumps, booster pump, sprinkler pump, jockey pump, staircase and corridor lighting circuits and fire alarm system, detection system, public address system, voice evacuation system etc. if any and It shall be housed in separate cabin.

GUIDELINES FOR INTERNAL STAIRWAYS (if any) AS PER NBC 2016

- Stairways shall be constructed of non-combustible materials throughout. Hollow combustible construction shall not be permitted. **Width of Staircase should not be less than 2.0 Mtr.**
- Internal staircase shall be constructed as a self-contained unit with at least one side adjacent to external walls and shall be completely enclosed.
- 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.
- 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.
No living space, store or other space, involving fire risk, shall open directly in to staircase.
- 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.
- 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.

- g) **Exits shall be so located that it will not be necessary to travel more than 30 Mtrs.**

EXIT REQUIREMENT:

- a. An exit may be doorway, corridor, Passageway(s) to an internal staircase, or external staircase, or to a verandah or terrace(s), which have access to the street, or to the roof of a building or a refuge area. An exit may also include a horizontal exit landing to an adjoining building at the same level.
- b. Every exit, exit access or exit discharge shall be continuously maintained free of all obstructions or impediments to full use in the case of fire or other emergency.
- c. Exits shall be clearly visible and the route to reach the exits shall be clearly marked and signs posted to guide the occupants of the floor concerned. Signs shall be illuminated and wired to an independent electric circuit on an alternative source of supply.
- d. To prevent spread of fire and smoke, fire doors with 2 hours fire resistance shall be provided at appropriate places along the escape routes and particularly at the entrance to lift lobby and stair well where a 'funnel or flue effect' may be created inducing an upward spread of fire.
- e. All exits shall provide continuous means of egress to the exterior of a building or to an exterior open spaces leading to the street.
- f. Exits shall be so arranged that they may be reached without passing through another occupied unit.

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.

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 10 Kgs each should be provided near LPG Battery.**

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 & confirming 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.
5. **Adequate Alcohol Resistance Foam Extinguishers having capacity of 50 Ltrs. to be installed in the Plant area.**

THE H.S.D & F.O. STORAGE TANK AREA:

1. The design, construction & installation of **“C” class** petroleum storage tank should be as per the specification laid down by **Chief Controller of Explosives. Approval from C.C.E. must be obtained.**
2. Sufficient Distance from all the sides of tank should be kept and barbed wire fencing should be provided of minimum 1.5 Mtr. Height.
3. Caution boards **“DANGER”** and **“NO SMOKING”** should be displayed on the gate of the fence yard.
4. Vent pipe of the storage tank should be provided as per the specification laid down in relevant standard.
5. The surface of the tank farm area should be made up surface & no grass or shrubs shall be allowed to grow within the tank farm area.
6. Two water monitors & two hydrant points shall be installed around the tank farm area diagonally opposite to each other. The jet of the monitors should reach the top most part of the highest tank in tank farm area. The peripheral ring with sprinklers shall be provided to each tank in tank farm area.
7. The lightening arrestor shall be installed on the highest part of the tank farm area.
8. All electrical fittings, fixtures in **“C” class** petroleum storage, loading/unloading pumps must be strictly flame proof & must be confirming to relevant IS specifications.
9. The tankers entering in to **“C” class** loading/unloading shall be provided with spark arrester on the silencer and proper earthening facility shall be provided to the tanker while loading/unloading. The water spray system shall be provided to loading / unloading platform.
10. Proper earthening shall be provided to storage tanks, pipelines, loading/unloading gadgets to dissipate the static current generated during the transportation of hydrocarbons.
11. The Storage tank should be as per the specification laid down by C.C.E. & approval of Chief Controller of Explosives must be obtained.

12. **The barbed wired fencing of 1.5 M height should be provided to Solvent Storage Yard.** The gate shall be painted in “RED” colour & it shall be kept always in locked position to avoid the entry of unauthorised person. The key of the storage yard shall be kept with responsible person of the Company.
13. Caution boards like “**Danger**”, “**No smoking**” shall be displayed on the gate of fence yard.
14. The marginal space around the tank farm should be kept free from any obstructions as per the drawing approved by Chief Controller of Explosives.
15. The surface of the tank farm area should be made up surface & no grass or shrubs shall be allowed to grow within the tank farm area.
16. The proper Earthening facility shall be provided to the tanks installed in tank farm area as well as the truck while loading/unloading the F.O. The spark arrestor shall be provided to the silencer of the truck before entering the premises.

GUIDELINES FOR LPG BULLET/STORAGE/TANK FARM AREA

1. The permission for L.P.G./Alcohol/Inflammable liquid storage must be obtained from Chief Controller of Explosives. The construction of L.P.G. storage tank should be confirming with the specification laid down by C.C.E. & as per approved drawing by Chief Controller of Explosives.
2. Ring hydrant system along with Fire Brigade inlet connection shall be provided. Hose boxes with 2 nos. of delivery hoses & One standard branch shall be provided near every hydrant point. Minimum four hydrant points shall be provided on every corner of the L.P.G. yard. The medium velocity water sprinkler system shall be provided on L.P.G./Alcohol/Inflammable liquid bullets to protect the bullets from radiant heat. The hydrant points shall be 10 M away from L.P.G./Alcohol/Inflammable liquid bullet.
3. All electrical fittings, fixtures & L.P.G./Alcohol/Inflammable liquid. loading/unloading pumps must be strictly flame proof & must be confirming to relevant IS specifications.
4. The tankers entering in to L.P.G./Alcohol/Inflammable liquid loading/unloading shall be provided with spark arrester on the silencer and proper earthening facility shall be provided to the L.P.G./Alcohol/Inflammable liquid. tanker while loading/unloading. The medium velocity water spray system shall be provide to L.P.G./Alcohol/Inflammable liquid loading / unloading platform.
5. Manually operated fire alarm system shall be provided to the L.P.G./Alcohol/Inflammable liquid yard. L.P.G./Alcohol/Inflammable liquid detection system must be provided in L.P.G./Alcohol/Inflammable liquid yard & loading / unloading platform.
6. Two fire pumps (1+1 Standby) shall be installed on the U.G. dedicated fire water storage tank. The water discharge capacity of the pumps should be such that it should discharge minimum 2280 ltrs/min and should give minimum pressure of 7 Kg/cm²
7. The alternate power connection should be provided to both fire pumps or either fire pump should be Diesel engine driven pump.

8. The lightening arrester shall be installed on the topmost part of the L.P.G./Alcohol/Inflammable liquid yard & proper earthening must be provided to the same.
9. Proper earthening shall be provided to L.P.G./Alcohol/Inflammable liquid bullets, pipelines, loading / unloading gadgets to dissipate the static current generated during the transportation of hydrocarbons or loading / unloading.
10. The barbed wired fencing of 1.5 M height should be provided to L.P.G./Alcohol/Inflammable liquid yard. The gate shall be painted in "RED" colour & it shall be kept always in locked position to avoid the entry of unauthorized person. The key of the L.P.G./Alcohol/Inflammable liquid yard shall be kept with the responsible person of the Company.
11. Caution boards like "Danger", "No Smoking" shall be displayed on the gate of L.P.G./Alcohol/Inflammable liquid yard.
12. The marginal space around the tank farm should be kept free from any obstructions as per the drawing approved by Chief Controller of Explosives.
13. The surface of the tank farm area should be made up surface & no grass or shrubs shall be allowed to grow within the tank farm area.
14. Minimum two water monitors shall be installed around the L.P.G./Alcohol/Inflammable liquid tank farm area diagonally opposite to each other. The jet of the monitors should reach the top most part of the L.P.G./Alcohol/Inflammable liquid tank in tank farm area.
15. In case of any leakage from L.P.G./Alcohol/Inflammable liquid bullet bund / dyke wall of relevant standard shall be provided to contain the leakage. The capacity of the bund / dyke wall should be such that it should contain 75% of the liquid of the largest tank in the tank farm area.
16. The height of the dyke / bund wall shall be minimum 1.5 M. & the construction of dyke / bund shall be 4 hours fire resistive type.

TRANSFORMERS:

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.

(1) Boiler room

Boiler and boiler rooms shall conform to the Indian Boilers Act. The following additional aspects should be taken into account in the location of boiler/boiler room:

- (a) Boilers shall not be allowed in a lower basement but may be allowed in basements at first level and away from the escape routes.
- (b) The boilers shall be installed in a fire-resisting room of 4 hours' fire resistance rating situated on the periphery of the basement. Catch-pitch shall be provided at the low level.
- (c) Entry to this room shall be provided with a composite door of two hours' fire resistance.
- (d) The boiler room shall be provided with fresh air inlets and smoke exhausts directly to the atmosphere.
- (e) The furnace oil tank for the boiler, if located in the adjoining room, shall be separated by fire resisting walls 4 hours rating. The entrance to this room shall be provided with double composite doors. A kerb of suitable height shall be provided at the entrance in order to prevent the flow of oil into the boiler room in case of tank rupture.
- (f) Foam inlets shall be provided on the external walls of the building near the ground level to enable the fire services to use foam in case of fire.

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. The inspection panel doors and any other opening in the shaft shall be provided with airtight fire doors having the fire resistance of not less than two hours.
5. Medium & low voltage wiring running in shaft and within fall ceiling shall run in metal conduit.
6. 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.

Electric cable shaft and electric meter room :

- i) Electric cables shall not pass through the staircase walls or shall be taken in concealed manner.
- ii) Inspection door of the shaft if provided shall have two hours of fire resistance.
- iii) Electric meter room shall be provided at the ground floor at the location marked on the plan. It shall be adequately ventilated.
- iv) Electrical shafts shall be sealed at each floor level with non combustible material such as vermiculite concrete.
- v) Electric wiring shall be having copper core having the fire resistance and low smoke hazard cables for the entire building with provision of ELCB / MCB in electrical installation of the building.

Access :-

Two entrance gates each of width not less than 04.50 mtr and height clearance not less than 04.50 mtrs shall be provided.

Courtyards :-

- i) The courtyards on all sides of the building shall be paved suitably to bear the load of fire engines weighing up to 45m. tones and shall be flushed to road level.
- ii) The courtyards shall be in one plane.

CAR PARKING:

- i) Car parking shall be permitted in the designated area.
- ii) Drainage of the car parking area of all the levels shall be laid independent from that of the buildings & it shall be provided with catch pit & fire trapped before connecting the building drainage or Municipal drainage.
- ii) Drainage of the car parking areas at all the levels shall be so laid as to prevent any overflow in the staircase, lift shaft etc.
- iii) The parking area shall not be used for dwelling purpose & repairing / maintenance purpose, at any time. Dwelling use of naked light/flame, repairing /maintenance of vehicles shall be strictly prohibited in the parking area.
- iv) Repairing / servicing of cars, use of naked light shall not be permitted in the car parking areas.
- v) The drive way shall be properly marked & maintained unobstructed

PORTABLE FIRE EXTINGUISHERS :-

- a. Two Dry Chemical Powder (A.B.C.) type fire extinguisher of 6 kgs. Capacity having I.S.I. certification mark and two buckets filled with dry, clean sand shall be kept in Electric meter Room as well as Lift Machine room if any.
- b. Eight Dry Chemical Powder (A.B.C.) type fire extinguishers each of 6 Kgs. Capacity having I.S.I. certification mark shall be kept at parking area equally distributed at prominent places.

SIGNAGES :-

Self glowing / fluorescent EXIT signs in green colour shall be provided showing the means of escape for the entire building.

This is a Provisional NOC and these remarks are offered from fire risk point of view only and necessary compliance of the Fire safety measures, necessary permission/ clearance applicable shall be obtained from concern

authorities to make the activity legalized and regularized, till then the process shall not be allowed.

Authenticity of the area, premises, structure, trade activity, Permitted Zones, NA certificate & earlier approvals shall be verified and confirmed by the concern Town Planning and Chief Officer of Municipal Council authorities and in case of any deviations this NOC shall be treated as cancelled.

The party has paid scrutiny Fees of Rs. 3,09,000/- (Rs. Three Lakh Nine Thousand Only) in reference to UTR No. CRB6347684 dated 25/12/2020 on the total gross built up area as certified by the then Architect vide his letter.

However, Town Planning is requested to verify the total built up area and inform this Department for the purpose of levying additional Capitation fee.

