



Rajasthan State Pollution Control Board

Headquarter, 4, Institutional Area, JhalanaDoongri, Jaipur-302004
Phone :0141-5159699,5159604 e-mail : member-secretary@rpcb.nic.in
TollFreeHelplineNo. : 18001806127 Ext. 7

F.14(5) Adm/ RSPCB/Project /2800-2841

Date: 17.2.22

Guidelines for Abatement and Control of Pollution in Brick Kiln Industry

In compliance of Hon'ble NGT order passed on dated 10/11/2021 in the matter of O.A.No.262/2020, Hakam Singh & Anr V/s State of Rajasthan & Others, the Rajasthan State Pollution Control Board, hereby issues guidelines for establishment of new brick kiln units and mandatory pollution control measures with new as well as existing brick kiln units.

1- GENERAL

- i) Brick kiln units may be established on a piece of land duly converted, for the purpose of establishment of brick kiln units, under relevant provisions of Rajasthan Land Revenue (Conversion of agricultural land for non-agricultural purposes in rural areas) Rules, 2007 and subsequent amendment rules, 2016 or on piece of land allotted by competent authority of State Government for establishment of brick kiln units.
- ii) Brick Kiln units may also be established on Khatedari land for which conversion is not required under Rule 6 of the Rajasthan Land Revenue (Conversion of agricultural land for non-agricultural purposes in rural areas) Rules, 2007 and subsequent amendment.(Annexure-I)
- iii) In cases where capacity of existing brick kiln is proposed to be enhanced by installing additional plant and machinery or otherwise (except replacement), it will be treated as the case for establishment of new units.
- iv) The brick kiln units shall be required to comply with provisions laid down in all other related laws in force. The Consent to Establish/Consent to operate issued under the Air Act and/or Water Act is limited to control of pollution and statutory provisions contained in these Acts and does not absolve project proponent from other statutory obligations prescribed under any other law or instrument.
- v) If competent authority for land conversion, on the basis of distance or any other issue, cancels land conversion and intimates to the Board about cancellation of land conversion, then consent to establish or operate, as the case may be, shall be revoked and/or refused



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by the State Board and the competent authority for land conversion shall be solely responsible to take necessary action for removal of the brick kiln unit from the site.

- vi) Similarly, in case of cancellation of Short Term Permit issued to the Brick Kiln units Consent to Establish or Consent to Operate, as the case may be, issued under provisions of Air Act,1981 and/or Water Act,1974 for adequacy of pollution control measures shall be revoked/refused by the State Board after receipt of information from Mining department.

2. STANDARDS TO BE ACHIEVED

Stack height to be provided with different type of brick kilns and emission standards have been notified by Ministry of Environment and Forest (MoEF), Govt. of India as per Environment (Protection) Rules, 1986 (as amended time to time) vide G.S.R. 543 (E) dated 22/7/2009 (**Annexure II**). There are other activities in brick manufacturing process like mining/quarrying of clay, handling & transportation of raw material/bricks which contribute to ambient air pollution. MoEF has also Notified National Ambient Air Quality Standards dated 16th November 2009 (**Annexure III**). These standards are mandatory to be achieved by the Brick Kiln units.

3. POLLUTION CONTROL MEASURES REQUIRED

Following measures must be provided by brick kiln owners for abatement of pollution:-

- i) Scientifically designed gravitational settling chamber for proper retention/ collection of Particulate matter /unburnt fuel part.
- ii) Approach road within the premises of brick kiln area should be pucca / stabilized with brick bats etc.
- iii) Bricks should be laid in a staggered manner for baking to entrap maximum particulate matter at the source itself.
- iv) Safe and adequate infrastructure facility for stack monitoring as per CPCB guideline(Annexure)
- v) Active haul roads inside the premises should be adequately wetted with water.



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- vi) Wheel cleaning facilities should be provided, for delivery trucks leaving the works, for the removal of mud.

4. PLANTATION AND OTHER ISSUES

- The piece of land shall be utilized for establishment of brick kiln unit in such a manner that plantation up to norms of 33% of total area of land can be carried out leaving sufficient spaces for utilities, office building and keeping peripheral plantation to the extent possible. The plantation must be carried out as per guidelines issued by the Board vide circular dated 15.7.04 (**Annexure-IV**).

Similar practice shall be adopted for plantation in case of brick kiln units established or proposed to be established on STP's, after demarcation of area within STP's. However if area/land is not suitable for plantation purposes, the project proponent may carry out plantation on an adjacent area or any other suitable area after duly informing the concerned Regional Officer.

- Ground water shall not be abstracted without prior N.O.C. from Central Ground Water Authority.
- A Sign Board showing the name, address and capacity of the brick kiln unit should be displayed at the entrance of the site.
- The brick kiln area (converted/allotted/demarked at STP) shall be clearly demarcated by providing boundary walls/fencing at all sides.

5. Restrictions vide Taj Trapezium and various matters from Hon'ble NGT

(A) Taj Trapezium Notification

As per Hon'ble Supreme Court directions issued on 10/05/1996 in the case of M.C. Mehta v/s Union of India & ors, no brick kiln shall be allowed to be established or operated within 20 km radial distance of the Taj Mahal and other significant monuments in the Taj Trapezium Zone and Bharatpur Bird Sanctuary.



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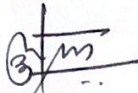
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- (B) **Brick kiln units located in the NCR Region of the State shall comply with the order passed by Hon'ble NGT in the following matters-**
- i) O.A.No,1016/2019,Utkarsh Panwar V/s CPCB & Others regarding conversion of brick kiln to zigzag structure
 - ii) O.A. No.21/2014 ,Vardhman Kaushik V/s Union of India regarding use of cleaner fuel such as natural gas (PNG/CNG),LPG,Bio Gas etc in compliance of CPCB letter dated 27/11/2020.
- C) **All Brick kiln units shall comply with the orders passed by Hon'ble NGT in the various matters from time to time.**

6. PROCEDURE TO SUBMIT APPLICATION FOR CONSENT TO ESTABLISH AND CONSENT TO OPERATE

- (i) Applications for consent to establish and consent to operate shall be submitted on line through RPCBMIS Portal along with prescribed documents and consent fees as per fee notification ,2016.
- (ii) All the applications shall be examined first by pre screening cell in terms of documents submitted and deficiencies, if any, shall be communicated online. In case of complete application the Project Proponent shall be asked to deposit the consent fee as per fee notification, 2016.
- (iii) As per categorisation of Board, Brick kiln units are categorised in Orange Category and the power to dispose off such applications is delegated to Regional Offices of the State Board.
- (iv) Checklist of documents for the applications of Consent to Establish & Consent to Operate is attached at **Annexure-V**.

All concerned are directed to ensure strict compliance of the Guidelines while dealing with the issues related with brick kiln industry.


(Anand Mohan)
Member Secretary

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F.14(5) Adm/ RSPCB/Project /2800-2841

Date: 17.2.22

1. P.S. to Chairperson, RSPCB, Jaipur.
2. Sr.PA to Member Secretary, RSPCB, Jaipur.
3. The CEE/CAO/CSO, RSPCB, Jaipur.
4. Group In-Charge, CD & Legal, PDF/ CPP & Hazardous Waste Cell / Liquid Waste, & E-waste Cell/ Textile/Mines & SCMG-DS/ OGM & Estt./HBC/ Training Project & IEC/ Planning/ BMW, ECC & Plastic Waste/ MUID Solid Waste, PCV, Complaints, Grievances, VIP & EC Compliance, RTI, RSPCB, Jaipur.
5. The Regional Officer, Regional Office, RSPCB, Alwar/ Balotra/ Bharatpur/ Bhiwadi/ Bhilwara/ Bikaner/ Chittorgarh/ Jaipur South/ Jaipur North/ Jodhpur/ Kishangarh/ Kota/ Pali/ Sikar/ Udaipur/Bundi/ Hanumangarh/Jaisalmer/ Sirohi /Jhalawar/Sawai Madhopur/ Jhunjhunu/Rajsamand/ Banswara/ Nagaur.
6. GIC (IT), with directions to upload on RSPCB website.

Member Secretary

o/c

GOVERNMENT OF RAJASTHAN
REVENUE (GROUP-6) DEPARTMENT

No. F.6(26) Rev.6/2014/22

Jaipur, Dated:- 17/5/16

NOTIFICATION

In exercise of the powers conferred by clause (xi-A) of sub-section (2) of section 261 read with section 90-A of the Rajasthan Land Revenue Act, 1956 (Act No. 15 of 1956), the State Government hereby makes the following rules further to amend the Rajasthan Land Revenue (Conversion of agricultural land for non-agricultural purposes in rural areas) Rules, 2007, namely:-

1. Short title and commencement.- (1) These rules may be called the Rajasthan Land Revenue (Conversion of agricultural land for non-agricultural purposes in rural areas) (Amendment) Rules, 2016.

(2) They shall come into force at once.

2. Amendment of rule 2.- In sub-rule (1) of rule 2 of the Rajasthan Land Revenue (Conversion of agricultural land for non-agricultural purposes in rural areas) Rules, 2007, hereinafter referred to as the said rules, the existing clauses (aaa) and (aaaa) shall be substituted by the following, namely:-

“(aaa) ‘Agri-marketing’ means business that derives most of its revenue from agriculture and may cover processing, manufacturing and distribution of agricultural products;

(aaaa) ‘Agro processing’ means processes that use agriculture products, agri-waste and intermediate agriculture products to produce products in a manner that there is a transformation in the nature of the agriculture product;”

3. Amendment of rule 6.-In rule 6 of the said rules,-

(i) in marginal heading, for the existing expression “small scale industries”, the expression “micro or small scale industries” shall be substituted;

(ii) for the existing expression “a small scale industrial unit”, the expression “a micro or small scale industrial unit and kjava” shall be substituted;

and



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(iii) for the existing expression "upto an area not exceeding 2500 Sq. meters.", the expression "upto an area not exceeding one acre." shall be substituted.

4. Amendment of rule 6A.- In rule 6A of the said rules,-

- (i) in marginal heading, for the existing expression "Agri-business activity", the expression "agri-marketing activity" shall be substituted; and
- (ii) for the existing expression "Agri-business activities", the expression "agri-marketing activities" shall be substituted:

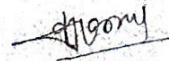
5. Amendment of rule 7.- In clause (x) of rule 7 of the said rules, for the existing expression "Agro-processing and Agri-business unit", the expression "Agro-processing and Agri-marketing unit" shall be substituted.

6. Amendment of rule 8.- The existing sub-rule (2-A) of rule 8 of the said rules, shall be substituted by the following, namely:-

"(2-A)No conversion charges as prescribed in rule 7 shall be payable for conversion of land for setting up of Agro-processing and Agri-marketing unit whose project is sanctioned before 31st March, 2019 under the Rajasthan Agro-Processing and Agri-Marketing Promotion Policy 2015."

7. Amendment of rule 9.- In clause (i) of sub-rule (1) of rule 9 of the said rules, for the existing expression "Agro-processing or Agri-business unit", the expression "Agro-processing or Agri-marketing unit" shall be substituted.

By order of the Governor



(Kunj Bihari Pandya)


Joint Secretary to the Government

Copy: - Copy forward to the following for information and necessary action:-

1. P.S. to Hon'ble Chief Minister, Rajasthan Jaipur.
2. S.A. to Hon'ble Revenue Minister, Rajasthan Jaipur.
3. P.S. to Chief Secretary, Rajasthan Jaipur.

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4. P.S. to Principal Secretary, Agriculture Department.
5. P.S. to Secretary, Revenue Department, Jaipur
6. Accountant General, Rajasthan, Jaipur
7. All Divisional Commissioners. Rajasthan
8. All Collectors, Rajasthan
9. Deputy Accountant General, SRA, Rajasthan, Jaipur.
10. Registrar, Board of Revenue, Rajasthan, Ajmer.
11. Director Printing and Stationary department for publication of the Notification in the Rajasthan Gazette dated 17-05-16 along with additional copies.
12. Director, Public Relation, Rajasthan, Jaipur.
13. Registrar, Board of Revenue, Ajmer.
14. "RAVIRA" Board of Revenue, Rajasthan, Ajmer.
15. Director, Information & Technology (Computer), Jaipur.
16. Joint Registrar, Library Judges, Supreme Court, New Delhi.
17. Registrar General of High Court of Rajasthan, Jodhpur.
18. All Joint Secretaries/Dy. Secretaries Department of Revenue.
19. Joint Secretary Revenue (G-5) Department for uploading on website.
20. Guard file.


Joint Secretary to the Government

Annexure II

Standards for emission or discharge of pollutants as per Schedule-I at S.No. 74 of Environment (Protection) Rules, 1986 for Brick Kilns:

(i) Bull's Trench Kiln (BTK)		
	Category*	Limiting concentration in mg/Nm³
Particulate Matter	Small	1000
	Medium	750
	Large	750
Stack Height		Minimum (metre)
	Small	22 or induced draft fan operating with minimum draft of 50 mm WG with 12 m stack height.
	Medium	27 or induced draft fan operating with minimum draft of 50 mm WG with 15 m stack height.
	Large	30 or induced draft fan operating with minimum draft of 50 mm WG with 17 m stack height.
*Category	Trench Width (m)	Production (bricks/day)
	< 4.50	Less than 15,000
Small BTK	4.50-6.75	15,000-30,000
Medium BTK	Above 6.75	Above 30,000
Large BTK		
(ii) Down-Draft Kiln (DDK)		
	Category++	Limiting concentration in

		mg/Nm³
Particulate Matter	Small/large/medium	1200
Stack Height		Minimum (metre)
	Small	12
	Medium	15
	Large	18
++Category	Production (bricks/day)	
Small DDK	Less than 15,000	
Medium DDK	15,000-30,000	
Large DDK	Above 30,000	
(iii) Vertical Shaft Kiln (VSK)		
	Category**	Limiting concentration in mg/Nm³
Particulate Matter	Small/large/medium	250
Stack Height		Minimum (metre)
	Small	11 (at least 5.5m from loading platform)
	Medium	14 (at least 7.5m from loading platform)
	Large	16 (at least 8.5m from loading platform)
**Category	No. of shafts	Production (bricks/day)
Small VSK	1-3	Less than 15,000
Medium VSK	4-6	15,000-30,000
Large VSK	7 or more	Above 30,000

Notes:-

1. Gravitational Settling Chamber along with fixed chimney of appropriate height shall be provided for all Bull's Trench Kilns.

2. One chimney per shaft in Vertical Shaft Kiln shall be provided. The two chimneys emanating from a shaft shall either be joined (at the loading platform in case of brick chimney or at appropriate level in case of metal chimney) to form a single chimney.

3. The above Standards shall be applicable for different kilns if coal, firewood and/or agricultural residues are used as fuel.

Ref. - G.S.R. 543 (E) dated 22nd July 2009 (www.moef.nic.in)

National Ambient Air Quality Standards (NAAQS)

S. No	Pollutant	Time Weighted Average	Concentration in Ambient Air		
			Industrial, Residential, Rural and other areas	Ecologically sensitive area (notified by central government)	Methods of measurement
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur dioxide (SO ₂), µg/m ³	Annual*	50	20	-Improved West & Gaeke
		24 hours**	80	80	-Ultraviolet fluorescence
2	Nitrogen Dioxide (NO ₂), µg/m ³	Annual*	40	30	-Modified Jacob & Hochheiser (Na- arsenite)
		24 hours**	80	80	-Chemiluminescence
3	Particulate Matter (Size less than 10µm) or PM ₁₀ µg/m ³	Annual*	60	60	- Gravimetric
		24 hours**	100	100	- TOEM - Beta attenuation
4	Particulate Matter (Size less than 2.5µm) or PM _{2.5} µg/m ³	Annual*	40	40	- Gravimetric
		24 hours**	60	60	- TOEM - Beta attenuation

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note:

Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation

(National Ambient Air Quality Standards, MOEF Notification dated 16th November 2009)

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Annexure-IV

No F. 14 (40) RPCB/Plg/Policy/5804 to 5825

Date: 15/07/2004

CIRCULAR

Entry No. 37 of schedule-I of Environment(Protection)Rules,1986 has stipulated that in respect of stone crushing units, the concerned unit would be required to grow a green belt along the periphery. The Board has also incorporated a condition of 33% of the unit's area as being required to be covered by plantation, while granting consent to these units to operate under the Air(Prevention & Control of Pollution)Act,1981. However, the numbers of trees, species etc. and the manner of their plantation have not been specified by either the Board or the Environment (Protection)Rules,1986. In view of the difficulty being experienced in implementing this requirement, following clarification is hereby issued:-

1. Trees shall necessarily be planted along the periphery of the area in rows. The unit may also take up additional plantation in other available open areas such as along the road, on unused land etc.
2. The computation of the area under plantation shall be done on the basis of the following norms:-
 - i. Tree species like Neem, Pipal, Jamun, Gulmohar etc. shall be deemed to cover 25 M² areas on maturity.
 - ii. Shrubs like Guava, Pomegranate, Jungle Jalebi etc. shall be deemed to cover an area of 9 M² on maturity.

The area likely to be covered by the plants mentioned above shall be computed accordingly. The herbs which require continuous watering for their maintenance shall not be counted to meet the norms though they can be planted by the management as per their need.

Illustration: In case of 10 no. of trees like Sehtoot, Siris, Shisham, Babool; 5 no. of Shrubs like Eucalyptus, Ashok, Ber, Kair and 20 Nos. of Herbs like

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Rose, Mehandi, Duranta, Merigold are planted the total area under plantation shall be computed as follows:

Area covered by trees = $10 \times 25 = 250 \text{ m}^2$

Area covered by shrubs = $05 \times 09 = 045 \text{ m}^2$

Area covered by herbs = $20 \times 00 = 000 \text{ m}^2$

Total Area 295 m^2

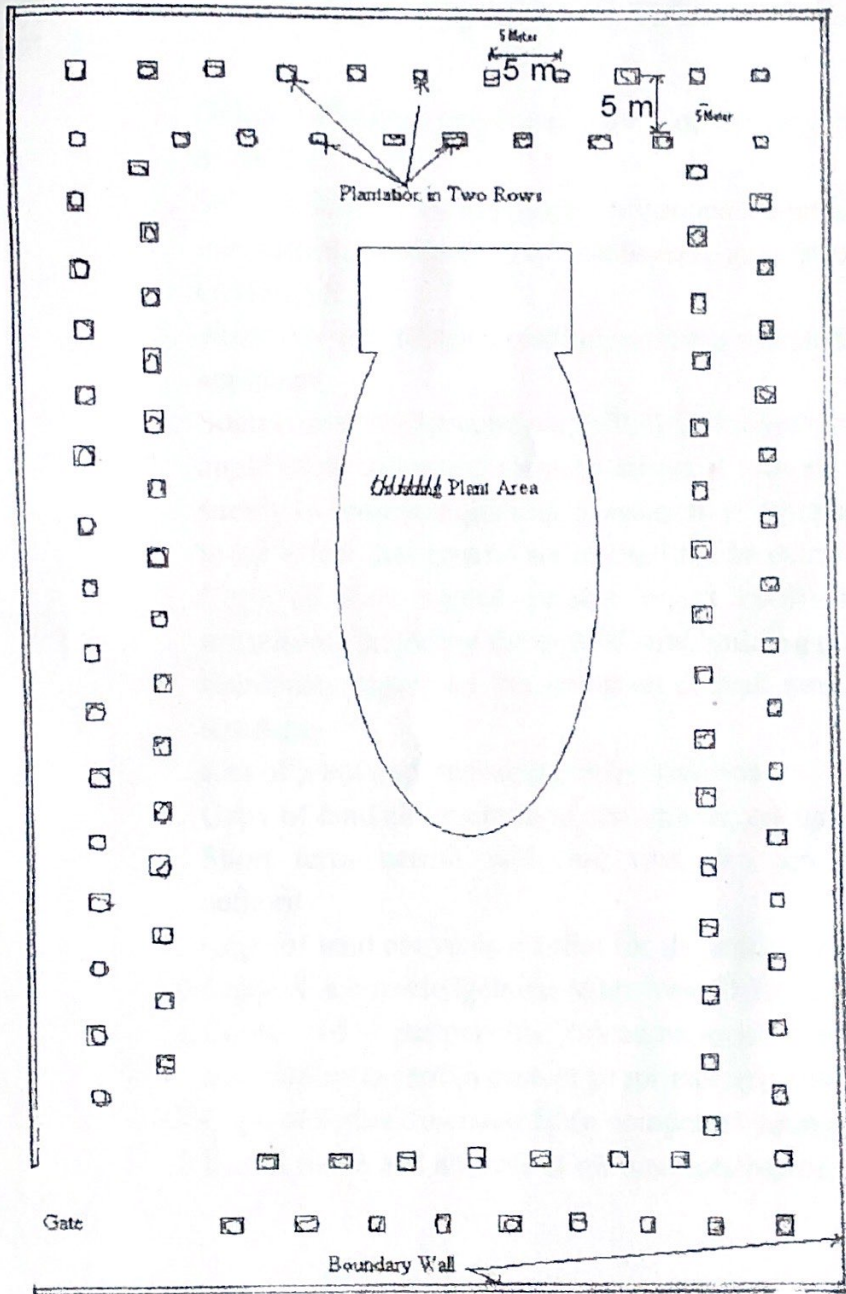
-Sd-
Member Secretary

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Typical Layout for Two Row Plantation



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Annexure-V

Checklist for the applications for Consent to Establish under Water Act, 1974 & Air Act, 1981.

1. Online submitted application for Consent to Establish under Water & Air Act.
2. Self declaration by the project proponent regarding details of capital investment, product, no.of employees, generation of trade/domestic effluent etc.
3. Authority letter/Board resolution/power of attorney in the favour of applicant.
4. Source of water (ground water/PHED/Tanker) and copy of receipt of application submitted for abstraction of ground water to CGWA/for supply of requisite quantity of water to competent authority/affidavit to the effect that ground water shall not be extracted.
5. Copy of duly signed project report certified by C.A./financial institutions including the cost of land,building,plant and machinery.
6. Feasibility report on the pollution control measures as per generic structure.
7. List of plant and machinery to be installed
8. Copy of land allotment/land conveyance documents/Copy of Mining Short term permit with the site plan approved by competent authority.
9. Copy of land conversion order for the intended use/specific purpose
10. Copy of acknowledgement letter from District Industry Centre.
11. Copy of partnership deed/memorandum & article of association(except in case of proprietorship firms)
12. Copy of forest diversion from competent authority(if applicable)
13. List of name and address of all directors/partners

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Checklist for the applications for Consent to Operate under Water Act, 1974 & Air Act, 1981.

1. Online submitted application for Consent to Operate under Water & Air Act.
2. Self declaration by the project proponent regarding details of capital investment, product, no.of employees, generation of trade/domestic effluent etc.
3. Authority letter/Board resolution/power of attorney in the favour of applicant.
4. Source of water (ground water/PHED/Tanker) and copy of receipt of application submitted for abstraction of ground water to CGWA/for supply of requisite quantity of water to competent authority/affidavit to the effect that ground water shall not be extracted.
5. Copy of duly signed project report certified by C.A./financial institutions including the cost of land,building,plant and machinery.
6. Point wise evidence based Compliance report of previous issued Consent to Establish/Consent to Operate (in case of renewal)
7. Analysis/monitoring report of source emission/ambient air/waste water/noise as applicable from the laboratory of State Board(in case of renewal)
8. Self certified production figures(in case of renewal)
9. Copy of partnership deed/memorandum & article of association(except in case of proprietorship firms)
10. List of name and address of all directors/partners