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**REGIONAL OFFICE, KALINAGANAGAR**  
**STATE POLLUTION CONTROL BOARD, ODISHA**  
[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]  
At: Dhabalagiri, P.O.: FC Project, Jajpur Road  
Dist- Jajpur-755020, Odisha, India.

No. 1136 / IND-48

Dt. 21.03.2024 /  
By Regd. Post/On-line

**CONSENT ORDER**

**CONSENT ORDER NO. 83 / RO-SPCB/ KALINGA NAGAR (APC/WPC)**

**Sub: Consent to operate under section 25/26 of Water (PCP) Act, 1974 and under section 21 of the Air (PCP) Act, 1981**

**Ref:** Your online application No. 5313433 and this office consent to operate order issued vide letter no. 1068, dated 29.03.2023.

Consent to operate is hereby granted under section 25 / 26 of Water (Prevention & Control of Pollution) Act, 1974 & under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed there under to:

**Name of the Industry** : **M/s Balasore Alloys Limited.**

**Name of the Occupier & Designation:** **Sri. S.C. Chigurupali, Executive Director**  
**Address:** **At Nizigarh, P.O.: Sukinda**  
**Dist: Jajpur, Odisha**

This consent order is valid for the period **from 01.04.2024 up to 31.03.2025.**

This consent order is valid for the product quantity, specified outlets, discharge quantity and quality, specified chimney / stack, emission quantity and quality of emissions as specified below.

**A. Details of Products Manufactured.**

Sl. No.	Product.	Quantity
1.	<b>Ferro Alloys</b> <b>(High Carbon Ferro Chrome &amp; Charge Chrome)</b>	<b>15660 MT/Annum</b>



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**B. Discharge permitted through the following outlet subject to the standard.**

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KLD or KL/hr	Prescribed standard.				
				pH	SS mg/l	O&G mg/l	BOD	
01.	Domestic waste water	Soak pit via septic tank.	-	-	-	-	-	-
02.	Cooling water	Recycling	-	-	-	-	-	-

**C. Emission permitted through the following stack subject to the prescribed standard.**

Chimney Stack No.	Description of stack.	Stack height (m) Above AGL	Quantity of emission	Prescribed standard		
				PM (mg/Nm <sup>3</sup> )	SO <sub>2</sub>	NO <sub>x</sub>
01.	Stack attached to GCP of SAF	40	1,60,000 m <sup>3</sup> /hr.	100	-	-
02.	Stack attached to dryer	10	20,000 m <sup>3</sup> /hr.	100	-	-
03.	Stack attached to raw material circuit	10	20,000 m <sup>3</sup> /hr.	100	-	-

*The Unit shall maintain within its premises the prescribed Ambient Noise Level for Residential Area.*

**D. Disposal of solid waste permitted in the following manner.**

Sl. No.	Type of solid waste	Quantity generated (TPD)	Quantity to be reused on site (TPD)	Quantity to be reused off site (TPD)	Quantity disposed off (TPD)	Description of disposal site.
1	Furnace Slag	50 TPD	-	-	50 TPD	After recovery of metal from the slag, rejected slag shall be stored in the earmarked area & shall be used for road making and low land filling inside the premises.
2	Dust from bag filter of SAF, Briquette Plant and raw material circuit	2 TPD	2 TPD	-	-	To be reused in furnace through Briquette making



## CONSENT ORDER

### E. GENERAL CONDITIONS FOR ALL UNITS.

1. The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
2. The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / and products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control equipment / system etc.
3. The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.
5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
9. An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
11. Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been tapped by the consumer for utilization for any purposes whatsoever.
12. Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
  - a) Industrial cooling, spraying in mine pits or boiler feed,
  - b) Domestic purpose
  - c) Process
13. The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
14. Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
15. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
18. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.



20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
21. The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.
22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production
23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.
24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.
25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner and to ion of standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
28. The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.
29. There shall not be any fugitive or episodal discharge from the premises.
30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurrence.
33. The industry has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as no to cause fugitive emission, dust problems through leaching etc., of any kind.
35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
  - i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
  - ii) Controlled incineration, wherever possible in case of combustible organic material.
  - iii) Composting, in case of bio-degradable material.
36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
38. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.





40. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
42. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
43. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate.

**GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES, AND  
17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).**

1. The applicant shall analyze the emissions every month for the parameters indicated in TABLE .B & C as mentioned in this order and shall furnish the report thereof to the Board by the 10<sup>th</sup> of the succeeding month.
2. The following information shall be forwarded to the Member Secretary on or before 10<sup>th</sup> of every month.
  - a. Performance / progress of the treatment plant.
  - b. Monthly statement of daily discharge of domestic and/or trade effluent.
3. **Non-compliance with effluent limitations**
  - a)
    - i) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
      - i) Causes of non-compliance
      - ii) A description of the non-compliance discharge including its impact on the receiving waters.
      - iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
      - iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
      - v) Steps to be taken by the applicant too prevent the condition of non-compliance.
  - b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
  - c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.
4. Proper housekeeping shall be maintained by a dedicated team.
5. The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.
6. The occupier shall engage dedicated qualified manpower to ensure continuous and effective operation of online stack/Ambient Air Quality/Effluent monitoring stations for maintenance of data base,real time transfer to SPCB server, data analysis and coordination with concerned personnel of process units for taking corrective measures in case of non-compliances and to respond to the instruction of SPCB in this manner.

#### **F. Special Conditions (Water & Air Pollution Control).**

1. The gas cleaning plant installed at submerged arc furnace and at the dryers of briquetting plant shall be maintained properly in order to meet the emission standard (100 mg/Nm<sup>3</sup> w.r.t Particulate Matter).
2. The unit shall provide adequate dust containment-cum-extraction system/dust suppression system at all potential dust generating points of the plant including that of raw material handling and product handling area etc. to minimize fugitive dust emission.
3. All raw materials, product and waste materials shall be transferred through covered vehicles without any spillage or leakages on the road.
4. Secondary emission generated from the hot metal tapping shall be collected through suction hood and connected to GCP.
5. Pneumatic dust collection system shall be installed at bag filter and heat exchanger hoppers for collection of flue dust and dust so collected shall be re-used.
6. Dust suppression arrangement shall be provided on approach road and internal road by using water sprinklers / mobile water tanker.
7. All the internal roads shall be black topped/concreted and cleaned regularly and wetted to minimize fugitive emission.
8. The unit should maintain proper housekeeping inside the plant premises.
9. Air compressor and DG sets should be acoustically designed and should be housed in appropriate acoustic enclosures so that the noise level outside it shall conform to the prescribed norms. The height of the stack attached to DG set shall conform to the following:  
 $H = h + 0.2\sqrt{KVA}$ ,  $h$  = Height of building where DG set is installed in meter.  
 $H$  = Height of stack in meter from the ground level,  $KVA$  = Capacity of the DG set
10. Waste water generated from various heads like furnace cooling, slag quenching water shall be completely recycled after treatment. Under no circumstances, there shall be any discharge to outside.
11. Garland drain shall be provided all around the raw material and product dump area for preventing any entry of rain water into the area or flow of solids along with surface run off. Run off generated from the dump yard shall routed through garland drain and treated adequately to meet the prescribed standard before discharge.
12. Effluent generated from the cooling, metal recovery unit etc shall be completely recycled and under no circumstances there shall be any discharge of effluent to outside the factory premises.
13. Domestic effluent shall be treated properly in septic tanks followed by soak pits constructed as per BIS specifications.
14. The waste slag generated shall be suitably disposed off without causing any public nuisance or environmental contamination.



## CONSENT ORDER

15. Green belt shall be developed along the boundary of the factory premises and vacant areas available inside the premises.
16. The unit shall abide by all the provisions of Environment (Protection) Act, 1986 and Rules framed there under.
17. The industry shall obtain permission from CGWA for drawl of ground water and submit to the Board.
18. The unit shall submit a declaration by 30<sup>th</sup> of April every year that all the pollution control systems are in good condition and operating properly and waste water quality and ambient air quality conform to the prescribed standards and all the consent conditions have been complied with.
19. The unit has to undertake that, in case of consent fee is revised upward during this period, they shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board, the consent order will be revoked without prior notice.
20. This Consent to Operate is subjected to statutory and other clearances from Govt. Of Odisha and/or Govt. Of India as and when applicable.
21. The Board reserves the right to revoke / refuse consent at any time during this period in case any violation is observed and to modify / stipulate additional conditions as deemed appropriate.

### **G. Additional Conditions.**

1. Height of the stack attached to bag house of briquette plant and stack attached to the bag house of day bin area transfer points and discharge point of feeding hopper shall be increased to 10 m height in order to disperse emission.
2. DFDS installed at feed hopper used for feeding of coke, quartz, dolomite and magnesite shall be functional before start of production.
3. The unit shall install screw conveyor or closed type conveying system from mixer machine to briquette press machine to arrest fugitive emission during conveying of raw materials.
4. The unit shall abide by the Fuel Policy of the State vide notification no. 7485 dtd. 12.04.2021 and Gazette notification dtd. 16.09.2021 of Forest, Environment & Climate Change Dept., Govt. of Odisha and amendment made there under
5. Product handling yard shall be covered in order to control fugitive emission.
6. Approach road between briquette storage area and briquette plant stacker area shall be concreted/black topped to control fugitive emission during plying of vehicles.
7. Surface run off collected from the product handling area and other of the plant shall be collected in settling pit and chemically treated to achieve the concentration of parameters i.e. pH, TSS, Cr+6 as per Board's prescribed standard prior discharge to its earthen pond or used for plantation inside the premises.



## CONSENT ORDER

The occupier must comply with the conditions stipulated in section **A, B, C, D, E, F** and **G** to keep this consent order valid.

To,

**Sri S.C. Chigurupali, Executive Director**  
**M/s Balasore Alloys Limited**  
**At Nizigarh, PO: Sukinda**  
**Dist: Jajpur, Odisha-755018.**

  
21.03.24

**REGIONAL OFFICER**

Regional Officer

State Pollution Control Board, Odisha  
Kalinga Nagar, Jajpur

Memo. No. \_\_\_\_\_ / Dtd. \_\_\_\_\_

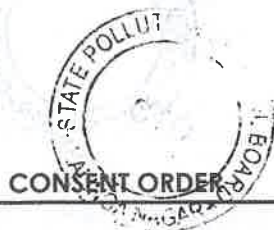
Copy forwarded to the :

1. Member Secretary, S.P.C. Board, Odisha, Bhubaneswar
2. Collector & District Magistrate, Jajpur
3. General Manager, RIC, Kalinganagar, Jajpur
4. Dy. Director of Mines, Jajpur
5. Copy to Guard file.

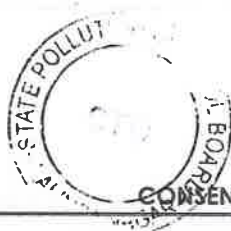
  
**REGIONAL OFFICER**



16.	Lead (as pb) mg/l max.	01	1.0	---	2.0
17.	Cardmium (as Cd) mg/l max.	2.	1.0	---	2.0
18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0	---	1.0
19.	Total Chromium (as Cr) mg/l max.	2.0	2.0	---	2.0
20.	Copper (as Cu) mg/l max.	3.0	3.0	---	3.0
21.	Zinc (as Zn) mg/l max.	5.0	15	---	15
22.	Selenium (as Sc) mg/l max.	0.05	0.05	---	0.05
23.	Nickel (as Nil) mg/l max.	3.0	3.0	---	5.0
24.	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25.	Fluoride ( as F) mg/l max.	2.0	15	---	15
26.	Dissolved Phosphates (as P) mg/l max.	5.0	---	---	---
27.	Sulphide (as S) mg/l max.	2.0	---	---	5.0
28.	Phennolic compounds as (C <sub>6</sub> H <sub>5</sub> OH) mg/l max.	1.0	5.0	---	5.0
29.	Radioactive materials a. Alpha emitter micro curie/ml. b. Beta emitter micro curie/ml.	10 <sup>7</sup> 10 <sup>6</sup>	10 <sup>7</sup> 10 <sup>6</sup>	10 <sup>8</sup> 10 <sup>7</sup>	10 <sup>7</sup> 10 <sup>6</sup>
30.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
31.	Manganese (as Mn)	2 mg/l	2 mg/l	---	2 mg/l
32.	Iron (Fe)	3 mg/l	3 mg/l	---	3 mg/l
33.	Vanadium (as V)	0.2 mg/l	0.2 mg/l	---	0.2 mg/l
34.	Nitrate Nitrogen	10 mg/l	---	---	20 mg/l

**GENERAL STANDARDS FOR DISCHARGE OF  
ENVIRONMENTAL POLLUTANTS PART -A: EFFLUENTS**

Sl. No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Costal Areas
		(a)	(b)	(c)	(d)
1.	Colour & odour	Colourless/Odorless as far as practicable	—	See 6 of Annex-I	See 6 of Annex-I
2.	Suspended Solids (mg/l)	100	600	200	For process wastewater – 100 b. For cooling water effluent 10% above total suspended matter of influent.
3.	Particular size of SS	Shall pass 850	—	—	
5.	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6.	Temperature	Shall not exceed 5°C above the receiving water temperature	—	—	Shall not exceed 5°C above the receiving water temperature
7.	Oil & Grease mg/l max.	10	20	10	20
8.	Total residual chlorine	1.0	—	—	1.0
9.	Ammonical nitrogen (as N) mg/l max.	50	50	—	50
10.	Total Kjeldahl nitrogen (as NH <sub>3</sub> ) mg/l max.	100	—	—	100
11.	Free ammonia (as NH <sub>3</sub> ) mg/l max.	5.0	—	—	5.0
12.	Biochemical Oxygen Demand (5 days at (20°C) mg/l max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/l max.	250	—	—	250
14.	Arsenic (as As) mg/l max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/l max.	0.01	0.01	—	0.001

**NATIONAL AMBIENT AIR QUALITY STANDARDS**

Sl. No.	Pollutants	Time Weighted Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Annual 24 Hours **	50 80	20 80	-Improved west and Gaeke - Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Annual * 24 Hours **	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3.	Particulate Matter (size less than 10µm) or PM <sub>10</sub> µg/m <sup>3</sup>	Annual * 24 Hours **	60 100	60 100	-Gravimetric - TOEM - Beta Attenuation
4.	Particulate Matter (size less than 2.5µm) or PM <sub>2.5</sub> µg/m <sup>3</sup>	Annual * 24 Hours **	40 60	40 60	-Gravimetric - TOEM - Beta Attenuation
5.	Ozone (O <sub>3</sub> ) µg/m <sup>3</sup>	8 Hours ** 1 Hours **	100 180	100 180	- UV Photometric - Chemiluminescence - Chemical Method
6.	Lead (Pb) µg/m <sup>3</sup>	Annual * 24 Hours **	0.50 1.0	0.50 1.0	-AAS/ICP method after sampling on EMP 2000 or equivalent filter paper. - ED-XRF using Teflon filter
7.	Carbon Monoxide (CO) mg/m <sup>3</sup>	8 Hours ** 1 Hours **	02 04	02 04	- Non Dispersive Infra Red (NDIR) - Spectroscopy
8.	Ammonia (NH <sub>3</sub> ) µg/m <sup>3</sup>	Annual* 24 Hours**	100 400	100 400	-Chemiluminescence - Indophenol Blue Method
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) µg/m <sup>3</sup>	Annual *	05	05	-Gas Chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP)-Particulate phase only, ng/m <sup>3</sup>	Annual*	01	01	-Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), ng/m <sup>3</sup>	Annual*	06	06	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.	Nickel (Ni), ng/m <sup>3</sup>	Annual*	20	20	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

\*\* 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.

