REGIONAL OFFICE
STATE POLLUTION CONTROL BOARD, ODISHA
(DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA)
At: Baniapat, P.O.: D.D. College, Keonjhar- 758001
Tel/FAX: (06766) 259077

No. 374 /IND-I-CON/86

Date 21/3/2016
By Regd. Post

CONSENT TO OPERATE ORDER

CONSENT ORDER NO. 289/WPC/APC

Sub: Consent to operate U/S 21 of Air (PCP) Act, 1981 and U/S 25/26 of the Water (PCP) Act, 1974.

Ref: Your application ID No. 446623, Dtd. 19.3.2016.

Consent to Operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & control of Pollution) Act, 1981 and rules framed thereunder to;

Name of the Mineral Stack Yard: DAITARI IRON ORE MINES OF
M/s ODISHA MINING CORPORATION LIMITED
(Daitari Extension Area)

Name of the Occupier & Designation: Sri Jagannath Patra, Manager (Mining)

Address of the unit: At: Daitari-Baliparbat, Po: Talapada, Dist. Keonjhar.

This consent order is valid for the period up to 31.03.2019

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. This consent is granted subject to the general and special conditions stipulated therein.

A. Details of Products to be handled:

Sl. No.	Product	Quantity
1.	Handling, Storage, Trading and Transportation of Sized Iron Ore & Iron Ore Fines	5,00,000 Tonnes/Month

B. Discharge permitted through the following outlets subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KLD or KL/hr	Prescribed standard
01.	Domestic effluent	Soak pit via septic tank		For inland surface water

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

Chimney Stack No.	Description of Stack	Stack height (m)	Quantity of emission	Prescribed standard		
				PM	SO_2	NO_x
1.	--	--	--	--	--	--

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.
	--	--	--	--	--	--
01.						

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 alteration or deviation made in actual practice from the particulars furnished in the applications 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 variation as deemes 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 for 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 purpose of the Act provided that the place where it is affixed shall in no case be at a point before which water has been taped 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 or 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 installed 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 surrounding 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 satisfactory 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, 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 be 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 reserve 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 consents 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 application shall analyses 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 10th of the succeeding month

2 The applicant shall provide and maintain at his own cost three ambient air quality monitoring stations for monitoring Suspended Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen, Hydro-Carbon, Carbon-Monixide and monitor the same once in a day/ week/ fortnight/ month. The data collected shall be maintained in a register and a monthly extract be furnished to the Board.

3. The applicant shall provide and maintain at his own cost a meteorological station to collect the data on wind velocity direction, temperature, humidity, rainfall, etc. and the daily reading shall be recorded and the extract sent to the Board once in a month

4. The applicant shall forward the following information to the Member Secretary, state Pollution control Board, Orissa, Bhubaneswar regularly

a Report of analysis of stack monitoring ambient air quality monitoring meterological data as required every month

b. Progress on planting of trees quarterly.

5 The applicant shall install mechanical composite sampling equipment and continuous flow measuring/ recording device on the effluent drains of trade as well as domestic effluent. A record of daily discharge shall be maintained.

6. The following information shall be forwarded to the Member Secretary on or before 10th of every month.

a Performance/progress of the treatment plant

b Monthly statement of daily discharge of domestic and /or trade effluent.

7. **Non-compliance with effluent limitations**

a) 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 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 to 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 constructed 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.

8 The applicant shall at his own cost get the effluent samples collected both before and after treatment and get them analyzed at an approval laboratory every month for the parameters indicated in Part-D and shall submit in duplicate the report thereof to the Board.

9 The addition of various treatment chemicals should be done only with mechanical dosers and proper equipment for regulation of correct dosages determined daily and for proper uniform feeding. Crude practices such as dumping of chemicals in drains or sumps or tackling of acids or alkalies arbitrarily and utilizing poles for stirring etc. should not be resorted to.

10 In the disposal of treated effluent on land for irrigation, the industry shall keep in view of the need for :

(i) Rotation of crops

(ii) Change of point of application of effluent on land

(iii) A portion of land kept fallow.

11. The adoption of these would avoid soil becoming sick or state, the industry may ensure this in consultation with the Agriculture Department

12. It is the sole responsibility of the industry to ensure that there are no complaints at any time from the royals in the surrounding areas as a results of discharge of sewage or trade effluent if any

13 Proper house keeping shall be maintained by a dedicated team.

14 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.

F. SPECIAL CONDITIONS (Air Pollution Control and Water Pollution Control).

The following conditions shall be complied with and compliance report to be submitted to the **Board within 06 months.**

1. All entrances, internal roadways and loading/unloading areas must be hard surfaced using a low permeability material (i.e concrete or bitumen).

2. All hard surfaced areas must be cleaned regularly to minimize potential for dust generation and off-site impact.

3. The boundary wall of at least 3 meter height shall be constructed along the periphery of the mineral stack yard to check the fine particles from being carried away with surface run off to nearby water bodies. Garland drain shall be provided along the boundary wall inside the mineral storage area. Provision shall be made for collection of wash water from the garland drain and water collected shall be treated in a sedimentation tank for further use inside the premises for green belt or water sprinkling etc. under no circumstances, the wash water shall be allowed outside the premises.

4. The height of material within storage areas must be kept below the level of the top of the boundary wall at all times to prevent the material to be air born.

5. All mineral storage area containing fine or dusty materials must be either:

   * Covered with tarpaulins when not in use, or
   * Fitted with Automatic Water Sprinkling / Dry for systems.

6. Sprinkler systems must be maintained in an operable condition at all times.

7. All mineral storage areas located inside the siding must be sealed to prevent material escaping into neighboring properties.

8. The speed of dumpers/trucks on connecting roads and all material loading/ unloading area shall be controlled and shall not exceed 10 kmph as increased speed increases dust emissions. Overloading of transport vehicles shall be avoided to avoid spillage.

9. The transport vehicle used should have a valid **"Pollution Under Control (PUC)" certificate.** The occupiers of the stock yard / railway siding should ensure this.

10. Care shall be taken to prevent creation of ruts and potholes in the transportation roads to prevent generation of dust.

11. Planting of trees all along main connecting road and regular grading of such road shall be practiced to prevent the generation of dust due to movement of dumpers/trucks.

12. During transportation of material by trucks/tippers/wagons through public roads, the vehicles shall be properly covered with tarpaulin sheets/leak proof and shall ply in safe speed. The trucks/tippers shall have sufficient free board. Spillage of material on public roads shall be cleared immediately on occurrence.

13. Dust suppression arrangement shall be provided on approach road by using water sprinklers / mobile water tanker.

14. Use of wheel wash facilities to minimize mud and dust track-out from unpaved approach roads to main paved and/or public roads.

15. At the material storage areas, atomized stationery mist spray of water or conditioning of material with water shall be practiced to prevent the dust to be air borne.

16. Green belt of at least one row of trees shall be developed along the boundary of material storage yard, in case of stack yards and railway siding which are located in close proximity to villages and residential areas. a green belt of adequate width between the habitation and the stack yard is recommended.

17. Appropriate transfer chutes shall be provided at material discharge points at material storage area, loading points etc., to minimize the discharge height and spread of air borne dust.

18. The operator's cabin in the dumpers and trucks shall be provided with dust proof enclosure and the persons working at high dust prone areas shall be provided with dust mask.

19. Proper housekeeping at the material storage areas, loading and dispatch areas, service facilities etc., shall be practiced.

20. Smoke emission from heavy duty vehicle operating in the stack yard shall conform to the standards prescribed under motor vehicle Rules, 1989.

21. Use of high pressure horns in the heavy duty vehicles operating in the mineral stack yard shall be avoided to control noise pollution.

22 The unit shall adopt adequate air pollution control measures during loading and unloading of materials in the stack yard.

23. Ambient Air Quality inside the premises shall conform to the National Ambient Air Quality Standard prescribed for industrial and mixed used area under EP Act, 1986.

24. Domestic effluent shall be discharged to soak pit through septic tank constructed as per BIS specification.

25. The noise level should be within ambient noise standard.

26. The unit shall abide by E (P) Act, 1986 and rules framed there under.

27. At the material storage areas, atomized stationery mist spray of water or conditioning of material with water shall be practiced to prevent the dust getting air borne.

28. The unit shall submit an annual return to this office in prescribed format by 31st May every year incorporating the quantities of material handled during the preceding financial year (i.e. 1st April to 31st March)

29. The Board may impose further condition or modify the conditions are stipulated in this order during installation and/or at the time of obtaining consent to operate and may revoke this order in case the stipulated conditions are not implemented and/or information have found to been suppressed / wrongly furnished in the application form.

G. Additional Conditions:

1. **Fixed water sprinklers shall be provided at the iron ore fines stack pile area for dust suppression during hauling, loading and unloading. The same shall be completed within 3 months.**

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

21/3/2016

REGIONAL OFFICER

To,

Sri Jagannath Patra, Manager (Mining)
Daitari Iron Ore Mines of M/s Odisha Mining Corporation Limited,
At: Daitari, Po: Talapada
Dist: Keonjhar, Odisha

Memo No...../ Dt.....

Copy forwarded to:

1. Collector & District Magistrate, Keonjhar
2. Member Secretary, State Pollution Control Board, Odisha, Bhubaneswar
3. Deputy Director of Mines, Jajpur Road Circle
4. Divisional Forest Officer, Keonjhar
5. Guard File

REGIONAL OFFICER

General Standards for discharge of environmental pollutants. Part-A: Effluents

Sl. No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Costal Areas
1	2	(a)	(b)	(c)	(d)
1	Colour & Odour	Colourless / Odourless as far as practicable	-------	See 6 of Annex-I	See 6 of Annex-I
2	Suspended Solids (mg/l)	100	600	200	a. For process wastewater-100 b. For cooling water effluent 10% above tota suspended matter of influent
3	Particular size of SS	Shall pass 850	----	----	----
4	------	------	------	------	------
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_3) mg/l max	100	------	------	100
11	Free ammonia (as NH_3) 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
16	Lead (as Pb) mg/l max	1.0	1.0	------	2.0
17	Cadmium (as Cd) mg/l max.	2.0	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 Se) mg/l max.	0.05	0.05	------	0.05
23	Nickel (as Ni) mg/l max.	3.0	3.0	------	5.0
24	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.2
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	Phenolic compounds (as C_6H_5OH) mg/l max.	1.0	5.0	------	5.0
29	Radioactive Materials a. Alpha emitter micro curie/ml	10^{-7}	10^{-7}	10^{-7}	10^{-7}
	b. Beta emitter micro curie/ml	10^{-6}	10^{-6}	10^{-6}	10^{-6}
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 (as 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	20 mg/l	----	------	20 mg/l

PART- B
NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighed Average	Concentrate of Ambient Air: Industrial Residential, Rural and other Area	Concentrate of Ambient Air: Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO_2), $\mu g/m^3$	Annual *	50	20	-Improved west and Gacke - Ultraviolet fluorescence
		24 Hours **	80	80	
2	Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual *	40	30	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
		24 Hours **	80	80	
3	Particulate Matter (size less than 10µm) or PM_{10} $\mu g/m^3$	Annual *	60	60	-Gravimetric - TOEM - Beta Attenuation
		24 Hours **	100	100	
4	Particulate Matter (size less than 2.5µm) or $PM_{2.5}$ $\mu g/m^3$	Annual *	40	40	-Gravimetric - TOEM - Beta Attenuation
		24 Hours **	60	60	
5	Ozone (O_3) $\mu g/m^3$	8 Hours **	100	100	- UV Photometric - Chemiluminescence - Chemical Method
		1 Hours **	180	180	
6	Lead (Pb) $\mu g/m^3$	Annual *	0.50	0.50	-AAS/ICP method after sampling on EMP 2000 or equivalent filter paper. - ED-XRT using Teflon filter
		24 Hours **	1.0	1.0	
7	Carbon Monoxide (CO) mg/m^3	8 Hours **	02	02	- Non Dispersive Infra Red (NDIR) Spectroscopy
		1 Hours **	04	04	
8	Ammonia (NH_3) $\mu g/m^3$	Annual*	100	100	-Chemiluminescence - Indo phenol Blue Method
		24 Hours**	400	400	
9	Benzene (C_6H_6) $\mu g/m^3$	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^3	Annual*	01	01	-Solvent extraction followed by HPLC/GC analysis
11	Arsenic (As), ng/m^3	Annual*	06	06	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni) ng/m^3	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.