

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE KOLKATA BENCH
Original Application No.125 of 2024/EZ.**

Bibekananda Pattnaik

..... Petitioner / Appellant

Vs.

State of Odisha & Ors.

.....Respondent / Defendant

INDEX

Sl. No.	Description of the documents	Page Nos.
1.	Affidavit.	1-5
2.	<u>ANNEXURE-R2/1</u> Photocopy of inspection report carried out on 04.12.2020.	6-7
3.	<u>ANNEXURE-R2/2</u> Photocopy of the Consent to Operate order issued vide letter No.2259 dtd.24.11.2020 which was valid upto 04.10.2021.	8-17

SPCB Odisha, R.No.2

Through

Kolkata

Date:

Sri Dipanjan Ghosh,
Advocates for the Respondent No.2
(State Pollution Control Board, Odisha)
e-mail: dpnjnghsh0@gmail.com
Phone No.:9903080977

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE KOLKATA BENCH
Original Application No.125 of 2024/EZ.**

21 SEP 2024

Bibekananda Pattnaik

..... Petitioner / Appellant

Vs.

State of Odisha & Ors.

.....Respondent / Defendant

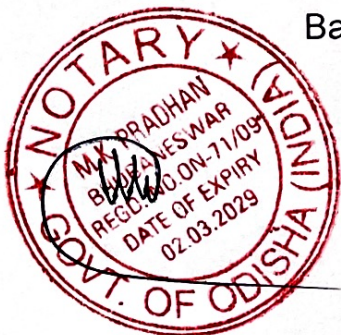
**AFFIDAVIT ON BEHALF OF STATE POLLUTION
CONTROL BOARD, RESPONDENT NO.2 IN
COMPLIANCE TO DIRECTION DTD.08.08.2024 OF
THIS HON'BLE TRIBUNAL.**

I, Dr. Kailasam Murugesan, IFS, son of late Paramasivam Kailasam aged around 56 years, at present working as Member Secretary, State Pollution Control Board, having my office at Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, P.O. Nayapalli, Bhubaneswar, Dist – Khurda, Odisha-751012, do hereby solemnly affirm and state as under:

1. That I am the Member Secretary of the Respondent No.2 Board and, as such, am well-acquainted with the facts and circumstances with the case and competent to swear this affidavit.



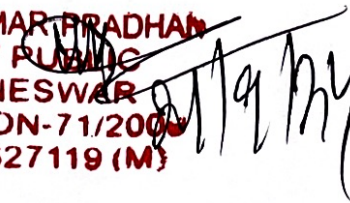
2. That in the aforesaid OA the applicant has challenged the notice issued by the office of the Mining Officer, Mayurbhanj, Baripara (R-5) inviting tender for grant of quarry leases which has been annexed as Annexure – 1 to this OA. The applicant has alleged that the notice deals with a long term lease of Budhabalanga Sand Bed-I in Belonapura, Madhunanda, Demphouda of Betnoti Tahasil over an area of 4.98 ha.
3. That at the outset, it is humbly submitted that the R-2 Board has not received any application for grant of consent in respect of Budhabalanga Sand Bed-I in Betnoti Tahasil for which auction notice has been issued by the Mining Officer, Baripada vide Annexure-1 of the OA as reported by the Regional Officer, Balasore of the R-2 Board.
4. That it is further humbly submitted that earlier the R-2 Board through its Regional Officer, Balasore had granted Consent to Operate in favour of Budhabalanga Sand Bed-I at Belonapada in Betnoti Tahasil, which is not connected with the auction notice issued by the Mining Officer, Baripada vide Annexure-1 of the OA.



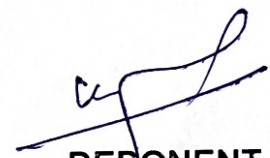
5. That the R-2 Board through the Regional Officer, Balasore after receipt of the hard copy of online application along with Mining Plan, Environmental Clearance from DEIAA, online Money Receipt and other relevant documents considered the first time Consent to Operate and granted the same vide letter No.2642 dtd.25.11.2016 which was valid upto 31.03.2020.
6. That M/s. Budhabalanga River Sand Bed-I, which is no way connected with the auction notice at Annexure-1 of the OA has been inspected by the officials of this Board on dtd.04.12.2020 in response to their application dtd.12.10.2020 for renewal of consent and the same was granted vide Board's letter No.2259 dtd.24.12.2020 which was valid upto 04.10.2021. A copy of the inspection report carried out on 04.12.2020 and copy of consent to operate order issued vide letter No.2259 dtd.24.11.2020 which was valid upto 04.10.2021 is annexed to this affidavit and marked as ANNEXURE – R2/1 and ANNEXURE – R2/2 respectively.



MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
REGD.NO.ON-71/2009
PH-9437627119 (M)



- 7. That the Respondent No.2 Board craves the leave of this Hon'ble Tribunal to file further affidavit if necessary for proper adjudication of the case.
- 8. That the annexures annexed to the present affidavit are true and correct copies of their originals.
- 9. That the contents of the above paragraphs are true and correct to the best of my knowledge, as derived from the official records, and that nothing material has been concealed therefrom.



DEPONENT
Member Secretary
State Pollution Control Board
Odisha, Bhubaneswar

VERIFICATION:

I, the above named deponent, do hereby verify that the contents of the above affidavit are true and correct to the best of my knowledge, as derived from official records, and that nothing material has been concealed therefrom.

Verified at Bhubaneswar on this the 21st day of September, 2024.



DEPONENT
Member Secretary
State Pollution Control Board
Odisha, Bhubaneswar

SWORN BEFORE ME



MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
REGD.NO.ON-71/2009
PH-9437627119 (M)



INSPECTION REPORT ON BUDHABALANGA SAND BED – I , AT- BELANPUR ,MADHUNANDA AND DEMPHOUDA VILLAGE ,VIA/TAHASIL - BETNOTI, DIST- MAYURBHANJ.

1	Name of the Mine inspected	Budhabalanga Sand Bed - I of Sri Jagannath Sahu , Lessee
2	Location of the Mine	At- Demphouda,PO-Nakhara,Via/Tahasil-Betnoti, Dist- Mayurbhanj.
3	Date of inspection	04.12.2020
4	Name of the person present during inspection.	Sri Jagannath Sahu, Lessee
5	Total lease hold area of the mine and validity of lease.	Ac.12.40dec (05.018 Ha.) Sand quarry over Plot No. 711,1 and 1 of Khata No.160,95 and 200 of Village- Belanpur, Madhunanda and Demphouda , Tahasil- Betnoti, Dist. Mayurbhanj. Lease period valid for 01 Year 6 months and 03 days i.e. from 01.04.2020 to 04.10.2021
5	Production quantity	The mine has proposed to mining 2105 Cum of sand for the financial year 2020-21 and 2021-22 i.e for the period from 01.04.2020 to 04.10.2021
5	Consent status	CTO was valid upto 31.03.2020. In the mean time it was extended upto 30.06.2020 due to all India lock down for pandemic COVID-19.The sand quarry has applied for renewal of consent to operate with adequate consent to operate fee of Rs.30000 through online payment system. The deposited CTO fee is adequate up to 31.03.2022.
6	Status of Environmental clearance.	The mine has obtained Environmental Clearance (EC) from District Environment Impact Assessment Authority (DEIAA) on 21.05.2016 vide memo No. DEIAA/19 for mining of minor mineral with total production capacity of 7060 Cum of sand over lease area of 05.01 Ha. during the lease period. The mine has submitted a modified approved mining plan, which is valid for the financial year 2020-2022 i.e for the period from dt. 01.04.2020 to 04.10.2021,where in it is mentioned that production of sand in this lease period will be 2105 Cum. As per the Revenue and Disaster Management Department, Govt. of Odisha letter No.16239,dt.15.05.2020 ,validity of lease will be for five years from the date of registration of lease deed and as clarified by F&E dept. Govt.of Odisha that EC will have validity for the period of lease and cases where executing lease deed in 2015-16 the Tahasildars had mentioned wrongly the lease period till end of financial year 2019-20 but lease has validity beyond 31.03.2020 as to be computed from registration of lease deed ,for remaining period of lease no fresh EC is

		necessary. The lease deed is registered on dtd. 05.10.2016. So the validity of lease for the stone quarry is upto 04.10.2021.
7	Operational status of the mine.	The sand quarry was not in operation during the inspection .
8	Method of mining.	The sand mine has proposed to carry out opencast manual dry pit mining method. The sand are extracted loaded and transferred from pits to the user through tractor ,dumper and hywa. The mining will be done on single shift basis . The local man power has been engaged in the mine as reported by the representative of the mine .
9	Pollution potential and control measures.	<u>Water pollution:</u> Water pollution potential from sand mining is not significant. Mine drainage water generated during sand mining will be percolated to the river. <u>Air pollution:</u> Air pollution in form of fugitive dust may be generated during loading of sand in tippers and tractors and during transportation through haul road. The mine has proposed to engage mobile water tanker for sprinkling of water on haul roads to control fugitive dust emission.
10	OB / solid waste management.	There will be no generation of OB or any solid waste during sand mining as per approved mining plan.
11	Conclusion and Recommendation.	<ol style="list-style-type: none"> 1. It has deposited adequate CTO fee up to 31.03.2022. 2. The mining plan has been approved for the year 2020-22 for year wise production of sand. 3. The unit has obtained CTO from the Board vide this office order No.2642,dtd 25.11.2016 for production of sand of quantity 5,660 Cum(Total) in the period 2016-20 and in the EC total production quantity is 7060 Cum. So the balance quantity of stone to be produced is 1400 Cum in the remaining lease period. 4. In view of the above, consent to operate may be considered up to 04.10.2021 with special conditions under Water & Air (PCP) Acts for mining of Stone of quantity 1400 Cum during the 2020-22 though the mine has applied for production of sand of quantity 2105 Cum (Total) as per approved modified mining plan in the remaining lease period i.e 2020-21 and 2021-22.


Er. Anil Kumar Barik
Asst. Env. Engineer

ANNEXURE-R2/2

Tel.: 06782-244110

Website: www.ospcboard.orge-mail: rospcb.balasore@ospcboard.org

REGIONAL OFFICE
STATE POLLUTION CONTROL BOARD, ODISHA

(DEPT. OF FOREST & ENVIRONMENT, GOVT. OF ODISHA)

Plot No. 1602, Ganeswarpur, Balasore – 756019

No. 2259 / Con. – 2766Date 24.12.2020CONSENT ORDER NO. 208 / 2020-21 (WPC & APC)

Sub: Consent to operate for existing / new operation of the mines u/s 25/26 of Water (PCP) Act, 1974 & 21 of Air (PCP) Act, 1981

Ref: Your online application no. 3178340 dtd.09.10.2020

Consent to operate is hereby granted u/s 25/26 of Water (PCP) Act, 1974 & 21 of Air (PCP) Act, 1981 and rules framed there under to:

Name of the Industry: **M/s Budhabalanga Sand Bed - I**Name of the Occupier & Designation: **Sri Jagannath Sahu, Lessee.**

Address: **Mouza : Belanpur , Madhunanda and Demphada , Plot No. 711 of Khata No. 160 , Plot No.1 of Khata No.95, and Plot No.1 of Khata No.200 , Area : Ac 12.40 dec (5.018Ha) , Tahasil : Betnoti , Dist. : Mayurbhanj**

This consent order is valid for the period up to 04.10.2021.

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 Manufactured:

Sl. No.	Product	Quantity (Cu. meters)
1	Sand	(For the Financial Year:2020-22)
		1400



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				

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		

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.

E. GENERAL CONDITIONS:

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 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 lace 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

F. SPECIAL CONDITIONS:

1. Mining shall be done over the proposed lease hold area of 5.018 hectares in Mouza – Belanpur, Madhunanda and Demphada, Tahasil – Betnoti of Mayurbhanj district as per the approved mining plan.
2. Stipulated conditions of SEIAA in the environmental clearance shall be abided.
3. Mining of sand shall be carried out by manual open cast mining method.
4. Domestic effluent if any from mine shall be discharged to soak pit via septic tank constructed as per BIS specification.
5. Mining activity shall not disturb flow pattern of river water.
6. Sand mining operation shall not affect the existing sources of irrigation or drinking water or industrial purpose.
7. Sand mining shall not be carried out in streams within 1/5 of the width of the stream bed from the bank.
8. Sand mining shall not be carried out within 200 meters of any existing structure such as bridges, dams, weirs, intake structure (s) either for irrigation or drinking water purposes or any other cross drainage structure.
9. Depth of sand mining shall not exceed 3 meters or water level whichever is less.
10. Dust suppression on mine haul roads shall be carried out by spraying water through mobile/fixed water sprinklers.
11. Regular collection of spilled over raw material from haul roads shall be practiced to prevent the generation of dust due to movement of dumpers / trucks.
12. Transport vehicles shall possess PUC, not overloaded and covered with tarpaulin.
13. Mined out area shall be leveled and free of foreign debris and materials.
14. Occupational safety measures like nose masks shall be provided to the working personnel of the mines.
15. Necessary permission from the competent authority shall be taken for drawal of surface / ground water.

16. Waste oil and used oil generated from mining machineries shall be disposed to authorized recyclers.
17. The mines shall maintain the ambient noise standards under Noise Pollution (Regulation & Control) (Amendment) Rules, 2010.
18. Ambient air quality inside the mine premises shall be maintained so as to confirm the National Ambient Air Quality Standards prescribed under the Environment (Protection) Rules, 1986.
19. The unit shall abide by provisions of the Environment (Protection) Act, 1986, amendments made thereof and rules framed there under.
20. The Board reserves the right to revoke/refuse consent at any time during this period incase any violation is observed and to modify / stipulate additional conditions as deemed appropriate.

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

To

Sri Jagannath Sahu, Lessee
Of M/s Budhabalanga Sand Bed -I,
At: Demphada, PO: Patalipura, PS: Baisinga
Dist.: Mayurbhanj, Odisha



REGIONAL OFFICER

Memo No. 2260(5) Date 24.12.2020

Copy forwarded to

- i) The Member Secretary, State Pollution Control Board, Orissa, Bhubaneswar,
- ii) The Collector and District Magistrate, Baripada, Mayurbhanj,
- iii) The Mining Officer, Baripada,
- iv) The Tahasildar, Betnoti Dist. – Mayurbhanj for information.
- v) Copy to Guard file


REGIONAL OFFICER

*Received the original
letter

24.12.2020*

o/c

ANNEXURE - I**EFFLUENT QUALITY STANDARDS**

Sl. No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Coastal Areas
		(a)	(b)	(c)	(d)
1.	Colour & odour	Colourless/Odourless as far as practicable	-----	See 6 of Annex-1	See 6 of Annex-1
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.	Ammoniacal nitrogen (as N) mg/l max.	50	50	-----	50
10.	Total Kjeldahl nitrogen (as NH ₃) mg/1 max.	100	---	-----	100
11.	Free ammonia (as NH ₃) mg/1 max.	5.0	---	-----	5.0
12.	Biochemical Oxygen Demand (5 days at 20°C) mg/1 max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/1 max.	250	---	-----	250
14.	Arsenic (as As) mg/1 max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/1 max.	0.01	0.01	-----	0.001
16.	Lead (as Pb) mg/1 max.	01.	1.0	-----	2.0
17.	Cadmium (as Cd) mg/1 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 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.	Phenolic compounds as (C ₆ H ₅ 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 ⁷ 10 ⁶	10 ⁷ 10 ⁶	10 ⁸ 10 ⁷	10 ⁷ 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 (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

ANNEXURE - II**AMBIENT AIR QUALITY STANDARDS**

Sl. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air		
			Industrial Area, Residential, Rural and Other areas	Ecological Sensitive Area (Notified by Central Govt.	Method of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO ₂), µg/m ³	Annual* 24 Hours**	50 80	20 80	1. Improve West and Gaeke method 2. Ultraviolet fluorescence
2	Oxides of Nitrogen as NO ₂ , µg/m ³	Annual* 24 Hours**	40 80	30 80	1. Jacob & Hcchheiser Modified (Na-Argenite Method) 2. Gas Phase Chemiluminescence
3	Particulate Matter (size less than 10 µm) or PM ₁₀ , µg/m ³	Annual* 24 Hours**	60 100	60 100	-Gravimetric -TOEM -Beta Attenuation
4	Particulate Matter (size less than 2.5 µm) or PM _{2.5} , µg/m ³	Annual* 24 hours**	40 60	40 60	-Gravimetric -TOEM -Beta Attenuation
7	Carbon Monoxide (CO), µg/m ³	8 hours** 1 hour**	02 04	02 04	Non Dispersive Infrared Red (NDIR) spectroscopy
8	Ammonia (NH ₃) µg/m ³	Annual* 24 hours**	100 400	100 400	-Chmiluminescence -indophenol Blue Method

* Annual Arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform interval.

** 24 hourly or 8 hourly or 1 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.