

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, AT NEW DELHI.

O.A. No. 693/2023

In the matter of:

News Item appearing in Deccan Herald dated 24.10.2023
titled "**Pollution Control Boards are the weak link**".

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Dated: 04/03/2024

HPSPCB, Shimla. H.P.

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, AT NEW DELHI**

Original Application No.693/2023

In the matter of:

News Item appearing in Deccan Herald dated 24.10.2023 titled
"Pollution Control Boards are the weak link".

**Compliance Report on behalf of HP State Pollution
Control Board in compliance to order dated 02-02-2024.**

May it please your Lordships:-

1. That the present Original Application has been registered on the basis of news item published in 'Deccan Herald' on 24-10-2023 under title: "Pollution Control Boards are the weak link" The news item expressed its concern that SPCBs do not have the resources and capacity to perform the functions assigned to them under various laws due to inadequate sanctioned strength of personnel, high number of vacancies especially in technical positions, absence of proper training, lack of pollution monitoring and abatement equipment, absence of technically competent leadership, protracted

enforcement mechanisms, insufficient funds and insufficient spending.

2. That the matter was listed on 02-02-2024 wherein Hon'ble NGT passed the following directions:-

“.....6. SPCBs/PCCs who have not filed report till now in terms of the directions of the Tribunal dated 23.11.2023, are directed to file the same within four weeks to the Tribunal by marking copy to the CPCB by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.....”

3. In compliance to the afore-cited directions, it is submitted that HP State Pollution Control Board was constituted by the Govt. of HP in the year 1974. At present the HP State Pollution Control Board has 11 Regional Offices at Shimla, Rampur, Parwanoo, Baddi, Paonta Sahib, Una, Bilaspur, Mandi, Kullu, Dharamshala and Chamba for monitoring the compliance of industries and ensure implementation of environmental laws. The State Board has one Central Laboratory at Parwanoo and 5 Regional Laboratories (total-6) at Parwanoo, Shimla, Paonta, Dharamshala, Una, and Sundernagar in the State. The present sanctioned strength and working staff of HP State Pollution Control Board is as under:-

Sr. No.	Name of Post	Sanctioned strength	Filled up	Vacant
1	Member Secretary	1	1	0
2	Joint Controller	1	1	0
3	Asstt. Controller	1	1	0
4	Chief Environmental Engineer	1	1	0
5	Senior Environmental Engineer	4	0	4
6	Environmental Engineer	7	3	4
7	Assistant Environmental Engineer	22	13	9
8	Jr. Environmental Engineer	45	24	21
9	Chief Scientific Officer	1	1	0
10	Pr. Scientific Officer	1	1	0
11	Senior Scientific Officer	7	2	5
12	Scientific Officer	12	11	1
13	Jr. Scientific Officer	29	12	17
14	Jr. Scientific Asstt.	13	2	11
15	Sr. Lab. Asstt.	6	4	2
16	Lab. Asstt.	17	4	13
17	Sr. Law Officer	1	1	0
18	Law Officer	1	1	0
19	Asstt. Law Officer	3	2	1
20	Private Secretary	1	1	0
21	Personal Assistant	1	0	1

22	Steno Typist	3	3	0
23	System Manager	1	1	0
24	Programmer	1	0	1
25	Sr. Database Analyst	2	2	0
26	Database Analyst	5	3	2
27	Data Entry Operator	16	11	5
28	Supdt. Gr. – I	1	1	0
29	Supdt. Gr. – II	6	6	0
30	Sr. Asstt.	9	6	3
31	Clerk	17	13	4
32	Jr. Office Assistant (IT)	22	2	20
33	Accountant	4	0	4
34	Jr. Accountant	20	11	9
35	Driver	12	11	1
36	Daftri	1	1	0
37	Chowkidar	17	17	0
38	Peon	41	35	6
39	Helper (redesignated as Laboratory Attendant)	18	12	6
	Total	371	221	150

It is submitted that matter for recruitment of 85 vacant posts of various categories in the Board is under process.

4. REGIONAL OFFICES OF HPSPCB:

As submitted in para supra presently there are 11 Regional Offices of HP State Pollution Control Board working in the State of HP. The brief description of duties of Regional Offices is as under:-

- Regulation of Industries through consent mechanism under the provisions of Water Act, 1974 and Air Act, 1981.
- Follow-up of consent conditions by regular monitoring and sampling of industries/units/rivers.
- Preparation and implementation of Action Plans for reviving Water Quality of Rivers and Air Quality of region.
- Preparation and implementation of policies, SOPs, siting norms etc for smooth functioning of Board.
- Appraisal and up gradation of pollution control devices in the polluting units through consent mechanism.
- Penal actions against the defaulting units under the provisions of Water Act, 1974 and Air Act, 1981.
- Conducting monthly meetings at District level to review the implantation of action plans prepared for revival of ecology with various stakeholders.
- Prompt action against public complaints.
- Conducting public hearings as per prescribed EIA notification.
- Conducting mass awareness programs/cleanliness campaigns/plantation drives with various stakeholders.

5. LABORATORIES OF HPSPCB:

The laboratory plays a vital role in carrying out the analysis of air, water, soil and solid waste samples. The State Board has 6 Laboratories in the State out of which two laboratories at Shimla and Paonta are National Accreditation Board for Testing

and Calibration Laboratories (NABL) accredited. Other laboratories are also in the process of attaining NABL accreditation. At present Laboratory Infrastructure available in 6 Labs is annexed as **Annexure-R-I**.

6. MONITORING ACTIVITIES OF THE LABORATORIES:

National Air Quality Monitoring Programme (NAMP):

The State Board is monitoring the ambient air quality of the State at 12 towns/cities (25 monitoring stations) at Shimla, Parwanoo, Damtal, Paonta Sahib, Kala Amb, Baddi, Nalagarh, Sunder Nagar, Manali, Una, Dharamshala and Rohtang under the National Ambient Air Quality Monitoring Program and taking remedial measures whenever necessary to maintain this quality. Further, to achieve the target for notified parameters under NAAQM monitoring protocol 2009, the State Board acquired the capability for monitoring & analysis of Ozone, Ammonia & PM_{2.5} parameters in the recent past. Presently, the State Board has capability to monitor PM₁₀, PM_{2.5}, NO_x, SO₂, NH₃, CO, and Ozone parameters.

In addition, the State Board has also installed a Continuous Ambient Air Quality Monitoring Station (CAAQMS) station at Baddi with an objective to strengthen air pollution monitoring network, enabling the State Board to monitor the ambient air

quality of the major industrial area of the State in a real-time basis.

Water Quality Management:

Assessment of the status of water quality of the water bodies is one of the most important activities of the State Board. The Central Pollution Control Board under the National Water Quality Monitoring (NWMP/MINARS) program is sponsoring the water quality monitoring of major rivers of the State. The monitoring under a centrally sponsored program has been carried out at 243 locations on a monthly basis beside, the water quality at 128 locations was also monitored by the State Board on a quarterly basis under the State Water Quality Monitoring (SWQM) program. The State Board has also introduced bio-monitoring as a new tool to determine the water quality with assessment of biological parameters viz., Saprobic-Index and Diversity Index.

Need for the equipment and infrastructure in Labs:

- Equipment/Instruments required for new ambient air quality monitoring stations (47 locations) across the State under the National Ambient Air Quality Monitoring Program, most of which would be established at 9 District Head Quarters which at presently are not covered under the air quality monitoring programs.

- Commissioning of CAAQMS at Shimla, enabling the State Board to monitor the ambient air quality on a real-time basis.
- Infrastructure required to obtain NABL accreditation for Central Laboratory Parwanoo, Regional Laboratory Sundernagar, Una & Dharamshala.
- Infrastructure required for the establishment of a laboratory for analyzing samples of Hazardous waste.

Provisions made in Laboratories for enforcement and monitoring of hotspots in critically polluted areas.

- For control and mitigation of water pollution problems in Polluted River stretches Action Plans were prepared by the State Board, which are being implemented involving various stakeholders.
- The State Board has prepared Action Plans for mitigation of air pollution in Non-attainment cities and is being implemented involving various stakeholders. The air monitoring network is being expanded by setting up 47 new monitoring stations across the State.

7. BUDGET SOURCE AND EXPENDITURE OF FINANCIAL YEARS 2020-2021 TO 2022-2023

Actual Budget Receipt for the Year 2020-2021 to 2022-2023

S. No.	Head of A/C	Actual Receipt 2020-21 (In Rs.)	Actual Receipt w.e.f. (1.04.2021 to 31.03.2022) (In Rs.)	Actual Receipt w.e.f. (1.04.2022 to 31.03.2023) (In Rs.)
1.	Annual License Fee	216831206.00	226323539.00	344905388.00
2.	Bio Medical Waste Mgt	786540.00	0.00	0.00
3.	Sample Testing Charges	7323151.36	22312969.00	34982667.00
4.	Interest (Bank & Other)	63511415.18	62893629.00	65814950.00
5.	Misc Receipt	21314993.28	12241.00	28039968.00
6.	Misc. Receipt (Right To Information)	8898.00	22643.00	8858.00
	Total	309776203.82	311565021.00	473751831.00

8. ACTUAL EXPENDITURE DURING THE FINANCIAL YEAR 2021-2022(UN-AUDITED) AND BUDGET ESTIMATE/ PROPOSAL FOR THE FINANCIAL YEAR 2022-2023

S. No.	Head of A/C	Actual Expenditure incurred during 2020-21 (Un-Audited) (Rs. In Lakhs)	Actual Expenditure incurred during 2021-22 (Un-Audited) (Rs. In Lakhs)	Actual Expenditure incurred during 2022-23 (Un-Audited) (Rs. In Lakhs)
1	2	3	4	5
1.	Establishment and Administration (includes salary, wages, leave salary, CPF/ Pension contribution of Board, Gratuity Premium, Reimbursement TA, LTC and Other Misc Exp etc.)	1305.59	1197.85	1927.17

2.	<p>(a) Revenue A/C (Office Running & Maintenance)</p> <p>Office Expenses, Bank Charges, Periodical and Newspaper, RRT, Veh-Run Expenses, Telephone, Electricity & Water Charges, Fees, Printing and Stationery, Misc, Expenses, Hospitality Expenses, Postage, Office Mech. & repair, Veh repairs & Maintenance, Computer Networking & Internet & electricity, Water Cess etc.</p> <p>(b) Capital A/C</p> <p>Library Books, Computer and Accessories, Machinery and Equipment, Furniture & Fixture, Electrical Installation and Provision for Veh Purchase etc.</p>	241.04	216.12	256.00
3.	Training & Workshop	3.38	6.10	9.27
4.	Legal / Professional Charges	8.80	14.18	14.85
5.	Mass Awareness and Publicity/ Advertisement	43.02	33.50	47.35

6.	Provision for setting up for climate change	20.00	0.00	25.00
7	Provision for office Building and Residential Accommodation	617.22	55.58	201.96
8	Provision for Loans and Advances to Staff& advances paid by NGT Division etc.	84.22	13.65	97.41
9	Air & Water Monitoring	33.96	34.92	138.67
10.	Strengthening of Laboratory (Purchase of Machine & Equipment, Up-gradation of Labs,& Air Quality network, Glassware, Filter Paper& chemical, Repair & Maintenance of equipment)	40.38	124.75	79.29
11	Setting up of new CAAQMS at Lab. Paonta Sahib, Shimla & Sundernagar	0.00	0.00	0.00
12	Provision for Income Tax/ Advance Tax etc.	409.42	689.20	381.85
13	C.M. Relief Fund	100.00	0.00	51.00
14	Provision for Local Urban Bodies for urban municipal solid waste (under CM Budget announcement 2017)	596.00	0.00	382.10

Total	3503.03	2385.85	3611.92
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9. That the aforementioned details/report of HP State Pollution Control Board at paras supra in compliance to order dated 02-02-2024 may kindly be taken on record please.

Signed by

Anil Joshi

Date: 04-03-2024 15:40:23

Member Secretary
HP State Pollution Control Board
Shimla, Himachal Pradesh

Date:4/03/2024

Place: Shimla

LABORATORY INFRASTRUCTURE & ACCREDITATION		
i)	Central Laboratory	Parwanoo
ii)	Address	HPSPCB, Central Laboratory, HCF 6-8, Sec.-4, Parwanoo, Teh. Kasauli, District Solan-173220
iii)	Accreditation of Laboratory	--
iv)	Parameters which can be analysed in Laboratory	
	Air Parameters	Sulfur Dioxide (SO₂)
		Oxides of Nitrogen (NO_x)
		Ozone (O₃)
		Ammonia (NH₃)
		Suspended Particulate Matter (SPM)
		Particulate Matter (PM₁₀, PM_{2.5})
		Carbon Monoxide (CO)
		Lead (Pb)
		Nickel (Ni)
		Arsenic (As)
	Water Parameters	pH
		Conductance
		Temperature
		Turbidity
		Chemical Oxygen Demand (COD)
		Bio-Chemical Oxygen Demand (BOD)
		Dissolved Oxygen (DO)
		Total Suspended Solids (TSS)
		Total Dissolved Solids (TDS)
		Total Fixed Solids (TFS)
		Total Solids (TS)
		Mixed Liquid Suspended Solids (MLSS)
		Nitrite (NO₂-N)
		Nitrate (NO₃-N)

Ammonical Nitrogen (NH₃-N)
Total Kjeldahl Nitrogen (TKN)
Total Phosphate (PO₄²⁻)
Total Coliform (TC)
Fecal Coliform (FC)
Fecal Streptococci (FS)
Sulfate (SO₄²⁻)
Sulfide(S²⁻)
Fluoride (F⁻)
Chloride (Cl⁻)
Boron
T. Hardness as CaCO₃
Calcium Hardness as CaCO₃
Magnesium Hardness (MgH)
Ca⁺⁺
Mg⁺⁺
Sodium (Na⁺)
Potassium(K⁺)
Na%
SAR (Sodium Absorption Ratio)
Chromium Hexavalent (Cr⁶⁺)
Oil and Grease(O&G),
Phenolphthalein Alkalinity
Total Alkalinity
Acidity
Phenol
Heavy Metal viz, Lead (Pb), Nickel (Ni), Manganese (Mn), Copper (Cu), Total Chromium (TCr), Zinc (Zn), Iron (Fe), Cadmium (Cd), Arsenic (As), Mercury (Hg), Aluminium (Al)
Bio- monitoring (Saprobity Index & Diversity Index).

LABORATORY INFRASTRUCTURE & ACCREDITATION

i)	Regional Laboratory	Sunder Nagar
ii)	Address	HPSPCB, Regional Laboratory, BBMB Colony, Sunder Nagar, District Mandi-175019
iii)	Accreditation of Laboratory	--
iv)	Parameters which can be analysed in Laboratory	
	Air Parameters	Sulfur Dioxide (SO₂)
		Oxides of Nitrogen (NO_x)
		Ozone (O₃)
		Ammonia (NH₃)
		Suspended Particulate Matter (SPM)
		Particulate Matter (PM₁₀, PM_{2.5})
		Carbon Monoxide (CO)
		Lead (Pb)
		Nickel (Ni)
		Arsenic (As)
	Water Parameters	pH
		Conductance
		Temperature
		Turbidity
		Chemical Oxygen Demand (COD)
		Bio-Chemical Oxygen Demand (BOD)
		Dissolved Oxygen (DO)
		Total Suspended Solids (TSS)
		Total Dissolved Solids (TDS)
		Total Fixed Solids (TFS)
		Total Solids (TS)
		Mixed Liquid Suspended Solids (MLSS)
		Nitrite (NO₂-N)
		Nitrate (NO₃-N)

	Ammonical Nitrogen (NH₃-N)
	Total Kjeldahl Nitrogen (TKN)
	Total Phosphate (PO₄²⁻)
	Total Coliform (TC)
	Fecal Coliform (FC)
	Fecal Streptococci (FS)
	Sulfate (SO₄²⁻)
	Sulfide(S₂⁻)
	Fluoride (F⁻)
	Chloride (Cl⁻)
	Boron
	T. Hardness as CaCO₃
	Calcium Hardness as CaCO₃
	Magnesium Hardness (MgH)
	Ca⁺⁺
	Mg⁺⁺
	Sodium (Na⁺)
	Potassium(K⁺)
	Na%
	SAR (Sodium Absorption Ratio)
	Chromium Hexavalent (Cr⁶⁺)
	Oil and Grease(O&G),
	Phenolphthalein Alkalinity
	Total Alkalinity
	Acidity
	Phenol
	Heavy Metal viz, Lead (Pb), Nickel (Ni), Manganese (Mn), Copper (Cu), Total Chromium (TCr), Zinc (Zn), Iron (Fe), Cadmium (Cd), Arsenic (As), Mercury (Hg), Aluminium (Al)
	Bio- monitoring (Saprobity Index & Diversity Index).

LABORATORY INFRASTRUCTURE & ACCREDITATION

i)	Laboratory	Paonta Sahib
ii)	Address	HPSPCB, Regional Laboratory, HIMUDA Colony, Shubhkhera, Paonta Sahib, District Sirmour-173025
iii)	Accreditation of laboratory	NABI Accrediated (ISO/IEC 17025:2017) valid upto 21.06.2025
iv)	Parameters which can be analysed in Laboratory	
	Air Parameters	Sulfur Dioxide (SO₂)
		Oxides of Nitrogen (NO_x)
		Ozone (O₃)
		Ammonia (NH₃)
		Suspended Particulate Matter (SPM)
		Particulate Matter (PM₁₀, PM_{2.5})
		Carbon Monoxide (CO)
		Lead (Pb)
		Nickel (Ni)
		Arsenic (As)
	Water Parameters	pH
		Conductance
		Temperature
		Turbidity
		Chemical Oxygen Demand (COD)
		Bio-Chemical Oxygen Demand (BOD)
		Dissolved Oxygen (DO)
		Total Suspended Solids (TSS)
		Total Dissolved Solids (TDS)
		Total Fixed Solids (TFS)
		Total Solids (TS)
		Mixed Liquid Suspended Solids (MLSS)
		Nitrite (NO₂-N)
		Nitrate (NO₃-N)

	Ammonical Nitrogen (NH₃-N)
	Total Kjeldahl Nitrogen (TKN)
	Total Phosphate (PO₄²⁻)
	Total Coliform (TC)
	Fecal Coliform (FC)
	Fecal Streptococci (FS)
	Sulfate (SO₄²⁻)
	Sulfide(S²⁻)
	Fluoride (F⁻)
	Chloride (Cl⁻)
	Boron
	T. Hardness as CaCO₃
	Calcium Hardness as CaCO₃
	Magnesium Hardness (MgH)
	Ca⁺⁺
	Mg⁺⁺
	Sodium (Na⁺)
	Potassium(K⁺)
	Na%
	SAR (Sodium Absorption Ratio)
	Chromium Hexavalent (Cr⁶⁺)
	Oil and Grease(O&G),
	Phenolphthalein Alkalinity
	Total Alkalinity
	Acidity
	Phenol
	Heavy Metal viz, Lead (Pb), Nickel (Ni), Manganese (Mn), Copper (Cu), Total Chromium (TCr), Zinc (Zn), Iron (Fe), Cadmium (Cd), Arsenic (As), Mercury (Hg)
	Bio- monitoring (Saprobity Index & Diversity Index).

LABORATORY INFRASTRUCTURE & ACCREDITATION

i)	Laboratory	Dharamshala
ii)	Address	HPSPCB, Regional Laboratory, Him Parivesh Bhawan, Near GSSS Dari, Tehsil Dharamshala, District Kangra-176057
iii)	Accreditation of laboratory	--
iv)	Parameters which can be analysed in Laboratory	
	Air Parameters	Sulfur Dioxide (SO₂)
		Oxides of Nitrogen (NO_x)
		Ozone (O₃)
		Ammonia (NH₃)
		Suspended Particulate Matter (SPM)
		Particulate Matter (PM₁₀, PM_{2.5})
		Carbon Monoxide (CO)
		Lead (Pb)
		Nickel (Ni)
		Arsenic (As)
		Iron (Fe)
		Aluminium (Al)
	Water Parameters	pH
		Conductance
		Temperature
		Turbidity
		Chemical Oxygen Demand (COD)
		Bio-Chemical Oxygen Demand (BOD)
		Dissolved Oxygen (DO)
		Total Suspended Solids (TSS)
		Total Dissolved Solids (TDS)
		Total Fixed Solids (TFS)
		Total Solids (TS)
		Mixed Liquid Suspended Solids (MLSS)
		Nitrite (NO₂-N)

Nitrate (NO ₃ -N)
Ammonical Nitrogen (NH ₃ -N)
Total Kjeldahl Nitrogen (TKN)
Total Phosphate (PO ₄ ²⁻)
Total Coliform (TC)
Fecal Coliform (FC)
Fecal Streptococci (FS)
Sulfate (SO ₄ ²⁻)
Sulfide(S ₂ ⁻)
Fluoride (F ⁻)
Chloride (Cl ⁻)
Boron
T. Hardness as CaCO ₃
Calcium Hardness as CaCO ₃
Magnesium Hardness (MgH)
Ca ⁺⁺
Mg ⁺⁺
Sodium (Na ⁺)
Potassium(K ⁺)
Na%
SAR (Sodium Absorption Ratio)
Chromium Hexavalent (Cr ⁶⁺)
Oil and Grease(O&G),
Phenolphthalein Alkalinity
Total Alkalinity
Acidity
Phenol
Total Cyanide
Heavy Metal viz, Lead (Pb), Nickel (Ni), Manganese (Mn), Copper (Cu), Total Chromium (TCr), Zinc (Zn), Iron (Fe), Cadmium (Cd), Arsenic (As), Mercury (Hg), Aluminium (Al), Selenium (Se)
Bio- monitoring (Saprobity Index & Diversity Index).

LABORATORY INFRASTRUCTURE & ACCREDITATION		
i)	Laboratory	Shimla
ii)	Address	HPSPCB, Regional Laboratory, Below BCS; Phase-III, New Shimla, District Shimla-171009
iii)	Accreditation of Laboratory	NABI Accredited (ISO/IEC 17025:2017) valid upto 24.08.2025
iv)	Parameters which can be analysed in Laboratory	
	Air Parameters	Sulfur Dioxide (SO ₂)
		Oxides of Nitrogen (NO _x)
		Ozone (O ₃)
		Ammonia (NH ₃)
		Suspended Particulate Matter (SPM)
		Particulate Matter (PM ₁₀ , PM _{2.5})
		Carbon Monoxide (CO)
		Lead (Pb)
		Nickel (Ni)
		Arsenic (As)
	Water Parameters	pH
		Conductance
		Temperature
		Turbidity
		Chemical Oxygen Demand (COD)
		Bio-Chemical Oxygen Demand (BOD)
		Dissolved Oxygen (DO)
		Total Suspended Solids (TSS)
		Total Dissolved Solids (TDS)
		Total Fixed Solids (TFS)
		Total Solids (TS)
		Mixed Liquid Suspended Solids (MLSS)
		Nitrite (NO ₂ -N)
		Nitrate (NO ₃ -N)
		Ammonical Nitrogen (NH ₃ -N)
		Total Kjeldahl Nitrogen (TKN)
		Total Phosphate (PO ₄ ²⁻)
		Ortho Phosphate

	Total Coliform (TC)
	Fecal Coliform (FC)
	Fecal Streptococci (FS)
	E.Coli
	Sulfate (SO₄²⁻)
	Sulfide(S₂⁻)
	Fluoride (F⁻)
	Chloride (Cl⁻)
	Boron
	T. Hardness as CaCO₃
	Calcium Hardness as CaCO₃
	Magnesium Hardness (MgH)
	Ca⁺⁺
	Mg⁺⁺
	Sodium (Na⁺)
	Potassium(K⁺)
	Na%
	SAR (Sodium Absorption Ratio)
	Chromium Hexavalent (Cr⁶⁺)
	Oil and Grease(O&G),
	Phenolphthalein Alkalinity
	Total Alkalinity
	Acidity
	Phenol
	Residual Chlorine
	Heavy Metal viz, Lead (Pb), Nickel (Ni), Manganese (Mn), Copper (Cu), Total Chromium (TCr), Zinc (Zn), Iron (Fe), Cadmium (Cd), Arsenic (As), Mercury (Hg), Aluminium (Al), Selenium(Se)
	Bio- monitoring (Saprobity Index & Diversity Index).

LABORATORY INFRASTRUCTURE & ACCREDITATION		
i)	Laboratory	Una
ii)	Address	HPSPCB, Phase IV, Rakkar Colony, Una
iii)	Accreditation of Laboratory	--
iv)	Parameters which can be analysed in Laboratory	
	Air Parameters	Sulfur Dioxide (SO ₂)
		Oxides of Nitrogen (NO _x)
		Ozone (O ₃)
		Ammonia (NH ₃)
		Suspended Particulate Matter (SPM)
		Particulate Matter (PM ₁₀ , PM _{2.5})
		Carbon Monoxide (CO)
		Lead (Pb)
		Nickel (Ni)
		Arsenic (As)
	Water Parameters	pH
		Conductance
		Temperature
		Turbidity
		Chemical Oxygen Demand (COD)
		Bio-Chemical Oxygen Demand (BOD)
		Dissolved Oxygen (DO)
		Total Suspended Solids (TSS)
		Total Dissolved Solids (TDS)
		Total Fixed Solids (TFS)
		Total Solids (TS)
		Mixed Liquid Suspended Solids (MLSS)
		Nitrite (NO ₂ -N)
		Nitrate (NO ₃ -N)
		Ammonical Nitrogen (NH ₃ -N)
		Total Kjeldahl Nitrogen (TKN)

	Total Phosphate (PO₄²⁻)
	Ortho Phosphate
	Total Coliform (TC)
	Fecal Coliform (FC)
	Fecal Streptococci (FS)
	E.Coli
	Sulfate (SO₄²⁻)
	Sulfide(S₂⁻)
	Fluoride (F⁻)
	Chloride (Cl⁻)
	Boron
	T. Hardness as CaCO₃
	Calcium Hardness as CaCO₃
	Magnesium Hardness (MgH)
	Ca⁺⁺
	Mg⁺⁺
	Sodium (Na⁺)
	Potassium(K⁺)
	Na%
	SAR (Sodium Absorption Ratio)
	Chromium Hexavalent (Cr⁶⁺)
	Oil and Grease(O&G),
	Phenolphthalein Alkalinity
	Total Alkalinity
	Acidity
	Phenol
	Residual Chlorine
	Heavy Metal viz, Lead (Pb), Nickel (Ni), Manganese (Mn), Copper (Cu), Total Chromium (TCr), Zinc (Zn), Iron (Fe), Cadmium (Cd), Arsenic (As), Mercury (Hg), Aluminium (Al), Selenium(Se)
	Bio- monitoring (Saprobity Index & Diversity Index).