

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

OA No. 1137 of 2024

**IN THE MATTER OF :**

Neelam Rani and others

.....Applicant(s)

Versus

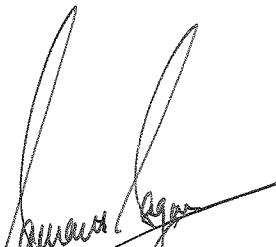
State of Punjab

.....Respondent(s)


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CHANDIGARH  
DATED : 06.02.2025

  
(SAMARTH SAGAR)  
P-1074/2008

  
(SANKALP SAGAR)  
P-1770/2014

  
(SUNIL KUMAR)  
P-1058/2012  
ADVOCATE

COUNSEL FOR THE RESPONDENT NO. 4

## BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

OA No. 1137 of 2024

IN THE MATTER OF :

Neelam Rani

.....Applicant

Versus

State of Punjab

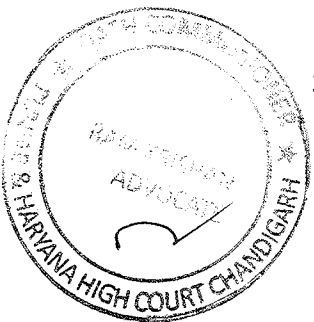
.....Respondent

**Short Reply by way of affidavit of Sh. Tilak Raj, Proprietor M/s Bharti Scientific Dyers, Village Meharban, Rahon Road, Ludhiana - Respondent No 4**

I, the above named deponent do hereby solemnly affirm and declare as under :-

Respectfully Showeth :-

1. That the deponent is a proprietor of M/s Bharti Scientific Dyers having an Industrial Unit in Village Meharban, Rahon Road, Ludhiana and as such is conversant with the facts of the case and is competent to file the present short reply by way of an affidavit.
2. That the applicant has filed the complaint/application with this Hon'ble Tribunal against the water & air pollution caused by the industrial unit of the deponent. The aforesaid complaint/application is treated as the present OA No. 1137 of 2024.
3. That this Hon'ble Tribunal vide order dated 18.11.2024 after considering the application of the applicant constituted a Joint Committee comprising of District Magistrate, Ludhiana and Punjab Pollution Control Board with directions to visit the site, collect relevant information and submit the factual report within one month. The relevant part of order dated 18.11.2024 is reproduced here-in-under :-



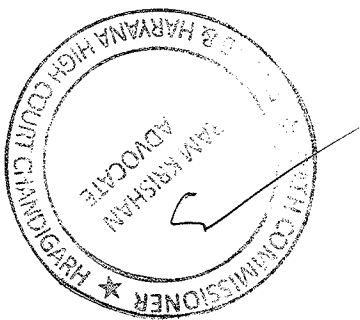
*Tilak Raj*

3. *In our view, we find it appropriate to obtain to verify the facts before proceedings further in the matter and, therefore, constitute a Joint Committee comprising District Magistrate, Ludhiana and Punjab State Pollution Control Board.*

4. *District Magistrate, Ludhiana shall be the Nodal Authority for co-ordination and compliance of this order.*

5. *Said Committee shall visit the site, collect relevant information and submit a factual report within one month.*

4. That accordingly, in compliance of the aforesaid orders passed by this Hon'ble Tribunal the Joint Committee requested the Sub Divisional Magistrate (East) Ludhiana and Environmental Engineer, PPCB to visit the site and collect the relevant information. Accordingly, after visiting the site, the Joint Committee filed its report dated 21.01.2025 (Annexure R) before this Hon'ble Tribunal dated along with its reply, the deponent craves leave to refer to the said report. It is also pertinent to mention that according to the aforesaid report the respondent Punjab Pollution Control Board vide letter dated 17.01.2025 (Annexure E) revoked the consent to operate granted to the industrial unit of the deponent and further vide letter dated 17.01.2025 directions were issued u/s 33-A of the Water (Prevention and Control of Pollution) Act, 1974 (Annexure F) which is reproduced as under :-



a) *That, the industry shall close down its operations, not to operate the unit and dismantle and remove all outlets and stop forthwith discharging its wastewater into sewer or through any other mode.*

b) *That, the industry will not restart any process unless all necessary water control measures are taken and concentration of various pollutants in its treated trade effluent conforms to the standards laid down by the Board for such type of discharges.*

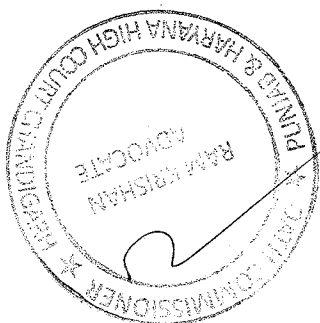
c) *That, the industry will not restart until it obtains the consent of the Board u/s 25/26 of the Water (Prevention & Control of Pollution) Act, 1974.*

*J. S. Roy*

d) *That, the Punjab State Power Corporation Limited authorities shall disconnect the supply of electricity available to the industry.*

Apart from above another letter dated 17.01.2025 (Annexure G) was issued to the Punjab State Power Corporation for disconnection of power supply of electricity to the premises of the industrial unit.

5. That in accordance with the orders passed by the Punjab Pollution Control Board dated 17.01.2025 (Annexure E to G) the consent to operate granted to the industry has been revoked, electricity connection has been disconnected and the whole industry has been shut down.
6. That the deponent at the outset most respectfully submits that the action taken by the Punjab Pollution Control Board as well as the Joint Committee are absolutely unlawful, unjustified and against the provisions of the Water (Prevention and Control of Pollution) Act, 1974 (here-in-after referred to be as "Act of 1974"). The said action is even against the orders of the Tribunal dated 18.11.2024. The deponent reserves the right to challenge the aforesaid orders passed by the PPCB dated 17.01.2025 (Annexure E to G) under appeal u/s 33-B of the Act, 1974.
7. That the report filed by the Joint Committee before this Hon'ble Tribunal dated 21.01.2025 (Annexure R) cannot be considered as the same is against the provisions of the Act of 1974. It is submitted that this Hon'ble Tribunal vide order dated 18.11.2024 had constituted a Joint Committee comprising of District Magistrate, Ludhiana and Punjab Pollution Control Board and directed the Committee to visit the site, collect the relevant information and submit a report within one month. It is submitted that, needless, the aforesaid action of visiting the site and collecting the relevant information with regard to the industrial unit had to be done in accordance with law and after issuing notice and giving opportunity of hearing to the deponent.



*Jilau Raj*

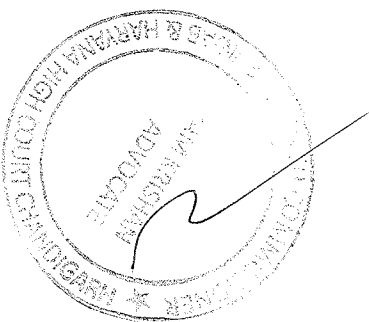
8. That the deponent most respectfully submits and states that before the said committee could visit the industrial unit, no prior notice was ever served upon the deponent or its employee. It is submitted that the deponent has only been served a notice of the present case on 03.02.2025. It is submitted that prior to the said notice, even orders dated 17.01.2025 (Annexure E to G) have been issued by the Punjab Pollution Control Board, which are absolutely unjustified, unlawful, arbitrary and without giving any notice or opportunity of hearing and against the provisions of the Act of 1974.
9. That the deponent most respectfully submits that even after visitation and inspection by the Joint Committee on the site of the industrial unit of the deponent, the provisions of Act of 1974 has not been followed. It is submitted that Section 21 clearly stipulate the power to take samples of effluent and the procedure to be followed in connection therewith. The Section 21 of the Water (Prevention and Control of Pollution) Act, 1974 is reproduced as under for the kind consideration of this Hon'ble Court :-

**21. Power to take samples of effluents and procedure to be followed in connection therewith.—**(1) *A State Board or any officer empowered by it in this behalf shall have power to take for the purpose of analysis samples of water from any stream or well or samples of any sewage or trade effluent which is passing from any plant or vessel or from or over any place into any such stream or well.*

(2) *The result of any analysis of a sample of any sewage or trade effluent taken under sub-section (1) shall not be admissible in evidence in any legal proceeding unless the provisions of sub-sections (3), (4) and (5) are complied with.*

(3) *Subject to the provisions of sub-sections (4) and (5), when a sample (composite or otherwise as may be warranted by the process used) of any sewage or trade effluent is taken for analysis under sub-section (1), the person taking the sample shall—*

*Jilave Roy*



**(a) serve on the person in charge of, or having control over, the plant or vessel or in occupation of the place (which person is hereinafter referred to as the occupier) or any agent of such occupier, a notice, then and there in such form as may be prescribed of his intention to have it so analysed;**

**(b) in the presence of the occupier or his agent, divide the sample into two parts;**

**(c) cause each part to be placed in a container which shall be marked and sealed and shall also be signed both by the person taking the sample and the occupier or his agent;**

**(d) send one container forthwith,—**

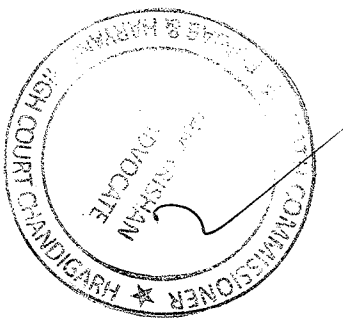
**(i) in a case where such sample is taken from any area situated in a Union territory, to the laboratory established or recognised by the Central Board under section 16; and**

**(ii) in any other case, to the laboratory established or recognised by the State Board under section 17;**

**(e) on the request of the occupier or his agent, send the second container,—**

**(i) in a case where such sample is taken from any area situated in a Union territory, to the laboratory established or specified under sub-section (1) of section 51; and**

**(ii) in any other case, to the laboratory established or specified under sub-section (1) of section 52.**



[(4) When a sample of any sewage or trade affluent is taken for analysis under sub-section (1) and the person taking the sample serves on the occupier or his agent, a notice under clause (a) of sub-section (3) and the occupier or his agent wilfully absents himself, then,—

*S. S. Shan*

(a) the sample so taken shall be placed in a container which shall be marked and sealed and shall also be signed by the person taking the sample and the same shall be sent forthwith by such person for analysis to the laboratory referred to in sub-clause (i) or sub-clause (ii), as the case may be, of clause (e) of sub-section (3) and such person shall inform the Government analyst appointed under sub-section (1) or sub-section (2), as the case may be, of section 53, in writing about the wilful absence of the occupier or his agent; and

(b) the cost incurred in getting such sample analysed shall be payable by the occupier or his agent and in case of default of such payment, the same shall be recoverable from the occupier or his agent, as the case may be, as an arrear of land revenue or of public demand:

*Provided that no such recovery shall be made unless the occupier or, as the case may be, his agent has been given a reasonable opportunity of being heard in the matter.]*

(5) When a sample of any sewage or trade effluent is taken for analysis under sub-section (1) and the person taking the sample serves on the occupier or his agent a notice under clause (a) of sub-section (3) and the occupier or his agent who is present at the time of taking the sample does not make a request for dividing the sample into two parts as provided in clause (b) of sub-section (3), then, the sample so taken shall be placed in a container which shall be marked and sealed and shall also be signed by the person taking the sample and the same shall be sent forthwith by such person for analysis to the laboratory referred to in sub-clause (i) or sub-clause (ii), as the case may be, of clause (d) of sub-section (3).

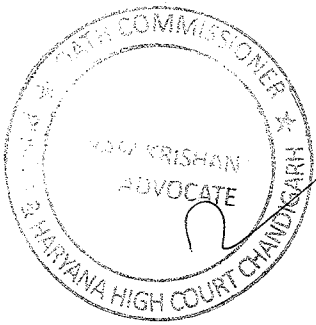


10. That a perusal of the aforesaid section would clearly show that prior to taking samples "a notice was to be served upon the agent or occupier." Furthermore, samples were to be collected in the presence of the agent and occupier. It is also submitted as per sub-section 3 sub clause (b) and (c) samples were to be collected in two parts, and each part to be placed in a container marked and

*J. Narain*

seal signed by the person taking the sample and the occupier or his agent. It is submitted that one container was to be sent to the Laboratory established or recognized by the Central Board u/s 16 and on the request of occupier or his agent second container to be sent to the Laboratory established or specified under Section 51 & 52.

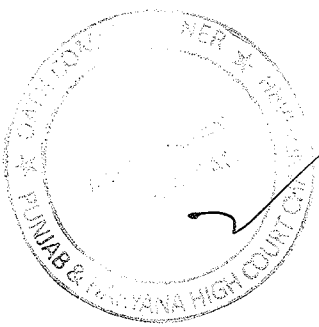
11. That it is submitted that the aforesaid Section 21 of the Water Act, 1974 has not been followed by the Joint Committee as well as by the PPCB. It is submitted that no notice was ever served upon the deponent or his agent before collecting the samples and the samples were never divided in to two parts as prescribed in the aforesaid section. This clearly shows clear violation of the provision of the Act of 1974. Therefore, the report dated 21.01.2025 (Annexure R) filed by the Joint Committee cannot be considered by this Hon'ble Tribunal as the same is unlawful and arbitrary.
12. That it is most respectfully submitted that even otherwise a perusal of the report of joint committee dated 21.01.2025 would show that the air emission sample collected from the industrial unit on 12.12.2024 are found to be in 'permissible limits'. It is further submitted that it is only the effluent sample collected from the outlet of ETP of the industrial unit in which it was found that the Chemical Oxygen Demand (COD) and Bio-Chemical Oxygen Demand (BOD) were found to be beyond permissible limit. It is submitted that the prescribed standard for COD is 250 mg./litre and the effluent sample from the ETP of the industry was 279 mg./litre which is only 29 mg./litre beyond permissible limit. Furthermore, the prescribed standard of BOD is 30 mg./litre and whereas the effluent sample collected shows to be 55 mg./litre which is only 25 mg./litre beyond permissible limit. It is submitted and stated that the aforesaid increase in the BOD & COD of the industrial unit could have easily been controlled had the PPCB or the Joint Committee issued a letter / notice before the



*Shri Raj*

illegal and unjustified revocation of consent to operate as well as closure of the operation of the industry vide letters dated 17.01.2025 (Annexure E to G).

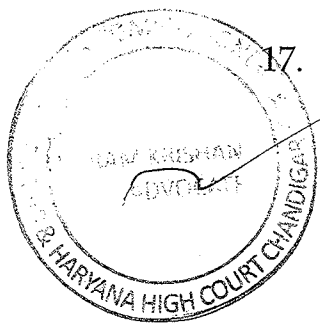
13. That apart from the aforesaid illegal, arbitrary and unjustified actions of PPCB it is submitted here that the water and air samples were collected on 12.12.2024 by the officers of the Joint Committee at around 9:00-9:15 AM. It is pertinent to mention here that on the said date i.e.12.12.2024 the operations of the factory work had just begun as it is operational 12 hours. The Effluent Treatment Plant (ETP) had just been started and the backwash process of the water was to be done. The officers of the Joint Committee started collecting samples without giving sufficient time for the backwash process to be completed. Therefore, it is due to this reason the analysis of water samples collected resulted in being slightly beyond permissible limits. Accordingly, the deponent filed a representation dated 15.01.2025 before the PPCB highlighting the said reasons which have been completely ignored. The true typed copy of representation dated 15.01.2025 is being annexed herewith Annexure-R-4/1.
14. That the deponent further most respectfully submits that Effluent Treatment Plant (ETP) of the Industrial Unit is of more than the required capacity. The feasibility report by Sew Water Treatment (P) Ltd., Ludhiana clearly shows that the ETP is of more than the required capacity. A perusal of the report would show that the ETP is designed to for discharge of 360 kl/day of effluent and whereas the consent had been granted for 120 Kl/day. Therefore, the ETP is of adequate capacity to handle the waste water generated of 120 KL/day. This also stands admitted by the Joint Committee in their report dated 21.01.2025. The feasibility report by Sew Water Treatment (P) Ltd. is also being annexed herewith as Annexure R-4/2.
15. That the deponent most respectfully submits that the aforesaid BOD & COD of the samples collected being beyond the prescribed



*J. Kaur*

parameters which was due to the fact that ETP had just started and backwash process of water was going on. Furthermore, had the backwash process of water been completed and the samples were collected thereafter the result of analysis would have been within permissible limits. Therefore, it is due to this reason alone that the BOD & COD were found to be beyond permissible limit and for the same the revocation of the consent to operate as well as stoppage of the operation of the industry was absolutely unjustified and uncalled. It is submitted that due to the aforesaid actions of revocation of the consent to operate as well as stopping the operation of the industry has prejudicially affected the deponent and the unit is facing financial losses as well as loss of good will every day. Apart from this the workers/ employees of the industrial unit are not being paid because of the aforesaid actions of stopping the operation of industry.

16. That it is again being reiterated that the actions taken by the PPCB vide orders dated 17.01.2025 (Annexure E to G of reply by Joint Committee) are absolutely unlawful and unjustified and arbitrary and against the provisions of the Act of 1974 as stated above as no notice nor opportunity of hearing has been afforded to the deponent, as per normal recourse under Section 33 A of the Act, 1974.



17. That a perusal of the complaint filed by the applicant would also shows that the complaint is absolutely frivolous and baseless and without any evidence. Even the report filed by the Joint Committee dated 21.01.2025 before this Hon'ble Tribunal clearly states that there is no air pollution as the samples of Air emission are in permissible limits. Furthermore, effluent sample collected also shows that all the parameters except BOD & COD are in permissible limits. Even otherwise the BOD & COD are just beyond permissible limit which can be easily controlled and for the said reason total closure of the industry as well as revocation of the consent to operate vide orders dated 17.01.2025 are

*J. K. Roy*

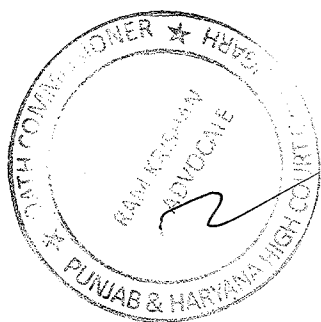
absolutely unjustified, unlawful, arbitrary and against the provisions of the Act of 1974.

18. That the deponent most respectfully states and submits that the entire process of collection of samples by the officers of the Joint Committee and PPCB are in violation of the Act of 1974 and against the principles of natural justice. Therefore, the orders dated 17.01.2025 (Annexures E to G) revoking the consent to operate the industrial unit be restored, the electricity be restored and the operations of the industry be started. Further, the deponent states that after industry is made operational fresh samples be collected by the Joint Committee in accordance with the provisions of the Act, 1974 after giving due notice to the deponent and opportunity of hearing. The deponent is ready and willing to join the process of collection of samples.
19. That the deponent craves leave of this Hon'ble Tribunal to file the present short reply at this stage while reserving his rights to file a detailed reply at a later stage if required and directed by this Hon'ble Tribunal.

**Prayer:-**

Therefore, in light of the aforesaid, submissions made in the present reply it is most respectfully prayed:-

- (i) that the present complaint/OA be dismissed;
- (ii) the report of the Joint Committee regarding water sampling (trade effluent) and action taken thereof be totally disregarded and not considered as the same is absolutely unjustified, unlawful, arbitrary and against the provisions of the Water (Prevention and Control of Pollution) Act, 1974;
- (iii) The orders dated 17.01.2025 (Annexures E to G) passed by the PPCB be set-aside and the respondent Punjab Pollution



*Ram Kishan*

Control Board be directed to restore the consent to operate the industry alongwith the electricity connection and further the industry be allowed to run/operate; and

- (iv) Further, if required, fresh sample(s) of water (trade effluent) be collected at a convenient time after giving notice and opportunity of hearing to the deponent.

Chandigarh  
DATED:6.2.2025

For BHARTI SCIENTIFIC DYERS

*J. Kaur Raj*  
Proprietor

DEPONENT

VERIFICATION

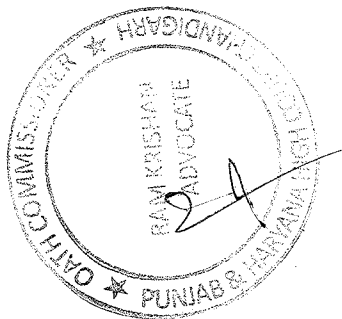
I, the deponent, do hereby solemnly affirm and declare that the contents of the above affidavit are true and correct to my knowledge and no part of it is false. Nothing material has been concealed.

Chandigarh  
DATED:6.2.2025

For BHARTI SCIENTIFIC DYERS

*J. Kaur Raj*  
Proprietor

DEPONENT



24452  
 Certified that above statement made on Oath/S.A. before me at Chandigarh by Tilak Raj Pooj Son/Daughter, W/o M/S Bharti Scientific Teh. Durg V. Nathmal, Bathinda Identified by Sankar Singh who is personally known to me. Adv.

Dated 6/2/25 Oath Commissioner  
Chandigarh

I identify the deponent who has been marked in my presence

Signature

Annexure R-4/11

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B.S.D.

M:98555-14090, 98555-1491

TIN NO:03881156488

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Bankers: State Ban of India

Email: [bhartiscientific086@gmail.com](mailto:bhartiscientific086@gmail.com)[Purthi.risi@gmail.com](mailto:Purthi.risi@gmail.com).**BHARTI SCIENTIFIC DYERS**

ROHAN ROAD, OPP. PREM COLONY, VILLAGE MEHARBAN, DISTT. LUDHIANA

Ref. No.....

Dated: 15-01-2025

The Environmental Engineer,  
Punjab Pollution Control Board,  
Regional Office-3  
Ludhiana

**Subject: Regarding sampling done by officers of the Board on 12.12.2024.**

Respected Sir,

With due respect, I, Tilak Raj, Prop. of Bharti Scientific Dyers, would like to bring to your kind attention towards the recent water and air sampling done by the officers of the Board on 12.12.2024.

Sir, in that regard, I would like to say that the water sample was collected by the officers of the Board, when our factory work was just started. The Effluent Treatment Plant was just started and the backwash process of the ETP was to be done. The officers of the Board started collecting the samples without giving sufficient time for the Backwash Process. Due to which, our water sample results were slightly inadequate and the water sample failed because of this.

So, Sir, its humble request to you to kindly take the water sample again.

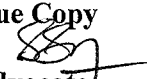
Regarding the E.T.P. capacity, we have already submitted the feasibility report to the Board which clearly shows that the E.T.P. plant is of more than required capacity.

Sir, kindly pay attention to our request.

Thanking you.

Sd/-  
Tilak Raj

True Copy

  
Advocate

**FEASIBILITY REPORT**

OF

**EFFLUENT TREATMENT PLANT****(PRIMARY TREATMENT+BIOLOGICAL TREATMENT+TERTIARY TREATMENT)****(Capacity = 360 M<sup>3</sup>/Day)****(TREATED EFFLUENT DISCHARGE ON TO LAND FOR PLANTATION)**

FOR

**DYEING UNIT**

**M/s. Bharti Scientific Dyres,  
Vill. Meharbaan,  
Rahon Road, Ludhiana, Punjab**

BY

**SEW WATER TREATMENT (P) LTD.  
LUDHIANA**

For SEW WATER TREATMENT PVT. LTD.

  
Auth. Signatory/ Director

### INTRODUCTION

SEW Water Treatment (P) Ltd., Ludhiana has prepared this feasibility for the Effluent treatment plant has installed at M/s. Bharti Scientific Dyres, Vill. Meharbaan, rahon Road, Ludhiana.

The aspects presents in this feasibility study are

1. Identification of sources of waste generation and the estimation of quality and quantity of the waste.
2. The methods of treatment along with design calculations of plant and flow diagrams.
3. Adequacy report of existing ETP

However, due to variable nature of the effluents encountered in each plant, certain modification of process operation may be necessary depending on the degree of variation in the raw effluent quality and quantity.

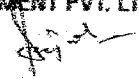
This report includes a brief description of the basis of design of the ETP, the adopted treatment philosophy and the principles of treatment involved. The scheme envisages treatment of wastewater from dyeing process.

The ETP is designed in a way so that if the changing in processing nature to some other products, even then the ETP will be able to handle the treatment efficiency without any problem.

### LOCATION OF INDUSTRY

The industry meets with the latest location guidelines of Punjab Pollution Control Board.

For SEW WATER TREATMENT PVT. LTD.

  
Auth. Signatory/ Director

### QUANTITY AND QUALITY OF WASTE WATER

Water is required only during dyeing of acrylic yarn & polyester fabrics and as such wastewater has generated only during this operation.

#### **Quantity**

The quantity of wastewater produced during the process is estimated as below at installed processing capacity of unit: 120 Kl/day

Design discharge for ETP in 24 hrs : 360 kl / day

Note: The industry recycles all cooling water which generates from indirect cooling from dyeing machines.

#### **Capacity of the Effluent Treatment Plant (ETP)**

The effluent treatment plant has been designed on the basis of the following:

- Dyeing capacity
- Operated continuously for 24 hours a day.
- Flow rate of treatment envisaged is 15 m<sup>3</sup> / hr.

#### **Raw effluent & Treated Water Characteristics**

S.No.	Parameter	Inlet effluent parameters	Treated effluent parameters
1.	pH	6.5-9.5	6.5-7.5
2.	TSS	200-250 ppm	< 25 ppm
3.	TDS	650-850 ppm	<1000 ppm
4.	BOD	125-140 ppm	<30 ppm
5.	COD	400-550 ppm	<100 ppm
6.	Oil & Grease	10-15 ppm	<5 ppm
7.	SAR	-	<26

\* TDS levels are outside the purview of the system design and would remain that as at inlet. Standards for TDS are < 2100 mg/l.

For SEW WATER TREATMENT PVT. LTD.

  
 Auth. Signatory/ Director

## THE EFFLUENT TREATMENT SCHEME

Treatment of wastewater mainly depends on the characteristics of effluent, volume of effluent, level of toxicity to be removed and the type of environment to receive the effluent. The treatment process that has been adopted for the Effluent Treatment Plant to be installed at industry is known as physico chemical process. The physico chemical process consists of screening, coagulation and flocculation and sedimentation. The physico chemical process removes a substantial part of all the parameters shown in above table.

### Process description of ETP:-

#### Bar Screen and O&G Chamber:

The effluent flows through Bar Screen and O&G Chamber into the equalization tank. The screen arrests suspended particles fiber and floating suspended matters like polythene paper, polythene bags, rags and others materials are removed by bar screen net. The screen is required to be cleaned periodically. And oil & Grease chamber are used for trap the oil and grease from the effluent wastewater.

#### Equalization Tank:

The tank acts as a holding tank for the raw effluent. The tank serves the purpose of homogenizing the flow, equalizes the peak loads, and feeds wastewater at a uniform rate to the rest of the treatment plant. A small quantity of air is fed into the tank to prevent development of odor & septicity.

#### Coagulation, Flocculation Tank & Primary Settling Tank:

Effluent wastewater are pump into baffled type reaction tank to raise pH by lime then coagulation tank where ferrous sulphate are used for further treatment and then overflow into flocculation tank where poly are dosed and increased the particle size of colloidal particles and overflow into the primary tube settler tank. In the primary tube settler tank, Its have Tube Deck PVC Media. Here all the precipitated solids separate and the overflow of treated water go to the filter feed tank.

#### Filter Feed Tank:

The overflow from the tube settler is collected in a tank. From this tank water will be feed into PSF & ACF with required sets of pumps. The tertiary treatment is carried out with the following units, for further reduction in TSS, BOD, odour and colour.

For SEW WATER TREATMENT PVT. LTD.

  
Auth. Signatory/ Director

**Pressure Sand Filter (PSF):**

The treated sewage from the treated water tank is pumped to pressure sand filter, filled with filter media comprising of graded gravel / sand. The suspended particulate matter is arrested and the clean filtered water coming out from pressure sand filter is led to activated carbon filter for further treatment.

**Activated Carbon Filter (ACF):**

The filter water from the PSF passes through the activated carbon filter, which is again a vertical pressure vessel, filled with filter media comprising of activated carbon granules over a bed of graded gravel.


Any odour and to some extent colour, in the waste water is removed by the carbon and the filter water is absolutely clear.

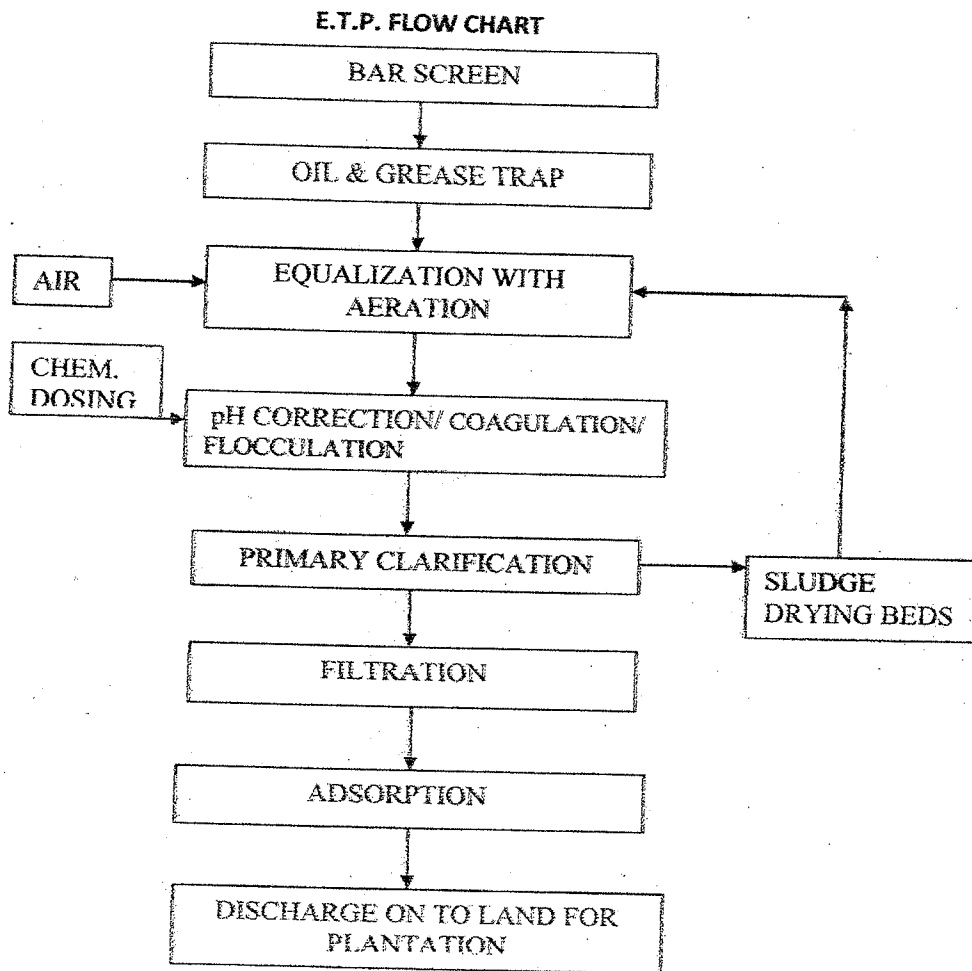
**Sludge disposal:**

The excess sludge generated is drained on sludge drying beds. The sludge drying bed process is a simple method of dewatering sludge that involves spreading a thin layer of sludge over a porous bed of sand and gravel. The liquid in the sludge drains through the bed by gravity and filtrate goes back to the equalization tank.

The treatment scheme flow sheet is presented in figure-A.

For SEW WATER TREATMENT PVT. LTD.

  
Auth. Signatory/ Director



For SEW WATER TREATMENT PVT. LTD.

Figure-A

*[Signature]*  
Auth. Signatory/ Director

### **Preparation of the chemical dosing**

Before starting the operation it will be necessary prepare all the necessary chemical solutions. The procedures of preparing the solutions are described below:

#### **Preparation of the Lime ( $\text{Ca}(\text{OH})_2$ ) solution**

During preparing the dosing solution of lime a 5% solution is prepared. In this regard the dosing tank, which is fitted with an air mixer, is at first filled with 500 litres of water. After that 25 kgs of lime is added and the Blower is switched on to stir the solution. The stirring should be continued on a 24-hour basis i.e. as long as the plant runs. After that the solution is ready for dosing. It is necessary to adjust the manual cock to get the desired flow.


#### **Preparation of the Ferrous Sulphate ( $\text{FeSO}_4$ ) solution**

During preparing the dosing solution of ferrous sulphate a 10% solution is prepared. In this regard the dosing tank, which is fitted with an air mixer, is at first filled with 500 litres of water. After that 50 kgs of ferrous sulphate is added and the Blower is switched on to stir the solution. The stirring is continued. After that the solution is ready for dosing. It is necessary to adjust the manual cock to get the desired flow.

#### **Preparation of the Poly Electrolyte (PE) solution**

During preparing the dosing solution of Poly electrolyte, a 0.05% solution is prepared. In this regard the dosing tank, which is fitted with an air mixer, is at first filled with 100 litres of water. After that 100 gms of PE is added and the blower is switched on to stir the solution. The stirring should be continued on a 24-hour basis i.e. as long as the plant runs. After that the solution is ready for dosing. It is necessary to adjust the manual cock to get the desired flow.

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**BASIC DESIGN CRITERIA OF ETP CAPACITY 360 KLD**

Design flow rate	:	15 kl/hr
Average BOD load of influent	:	140 mg/l
Suspended solids	:	250 mg/l

**DESIGN OF BAR SCREEN CHAMBER**

Quantity	:	1 No.
Type	:	Manual
Size	:	1.5 m x 0.5 m x 0.9 m
Coarse screen	:	12-15 mm
Fine screen	:	8-10 mm

**DESIGN OF OIL & GREASE TRAP TANK**

Type	:	Syphon riser pipe
Size	:	1.5 m x 4.8 m x 3.6 m
Total volume of tank	:	25 m <sup>3</sup>

**DESIGN OF RECTANGULAR PLAIN EQUALIZATION TANK**

Size	:	6.6 m x 4.8 m x 3.6 m
Total volume of tank	:	110 m <sup>3</sup>
Min. Retention period required	:	8 hr
Coarse Diffusers air grid	:	1 set

**COOLING TOWER**

Type	:	Induced draft
Max.Temp. difference	:	12°C
Capacity	:	150 TR

\*Eq. tank volume is adequate to equalize the effluent with diffused air grid and cooling tower to control temp. <35°C.

**SELECTION OF ROOTS AIR BLOWER FOR EQ. TANK**

Air discharge at 0.5 m	:	120 m <sup>3</sup> /hr
Motor capacity	:	5 HP+7.5 HP
Quantity	:	1W+1S

\*Adequate for Eq. tank and chemical mixing tank.

**SELECTION OF MAIN PUMP**

Average flow rate	:	15 m <sup>3</sup> /hr
Pump head	:	15 m
Required power for pump	:	5 HP, 3 Phase, 440 V
Suction/Delivery size	:	80 mm X 50 mm
Quantity	:	1W+1S

\*Adequate for design flow rate 15 m<sup>3</sup>/hr

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**DESIGN OF BAFFLED TYPE REACTION TANK**

Retention period	:	5 minutes
Total volume	:	2.5 m <sup>3</sup>
Size of tank provided	:	0.45 x 0.45 x 19.8 m

\*Adequate for a flow rate 15 m<sup>3</sup>/hr.

**DESIGN OF COAGULATION TANK**

Quantity	:	1 No.
Size of tank	:	2.7 dia X 2.5 m H
Total volume	:	10 m <sup>3</sup>
RPM of agitator	:	80
Required power for agitator	:	3 HP
Min. Retention period required	:	15 minutes

\*Adequate for a flow rate 15 m<sup>3</sup>/hr.

**DESIGN OF FLOCCULATION TANK**

Quantity	:	1 No.
Size of tank	:	1.35 dia X 3 m H
Total volume	:	4 m <sup>3</sup>
RPM of agitator	:	30
Required power for agitator	:	1 HP
Min. Retention period required	:	10 minutes

\*Adequate for a flow rate 15 m<sup>3</sup>/hr.

**DESIGN OF CHEMICAL DOSING TANKS**

Dosing tank for lime	:	1500 litres capacity
Location of dosing	:	Baffled type reaction tank
Dosing tank for ferrous Sulphate	:	1500 litres capacity
Location of dosing	:	Coagulation tank
Dosing tank for polyelectrolyte	:	100 litres capacity
Location of dosing	:	Flocculation tank

**DESIGN OF PRIMARY TUBE SETTLER -I & II (working in parallel)**

Average design flow	:	15 kl/hr
Tube Settler -I (6 kl/hr)	:	
Design sedimentation velocity	:	0.6 m/hr
Height of tube settler	:	2.85 m (without hopper)
Top area of tube settler	:	2.5 x 1.8 m
Angle of tube	:	60°
Type of tube deck media	:	Hexagonal shape
Volume of tube settler	:	12.8 m <sup>3</sup>
Design retention period	:	2.0 hrs
Surface loading rate (SLR)	:	1.5-3 m <sup>3</sup> /m <sup>2</sup> /hr

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**Tube Settler -II (9 kl/hr)**

Design sedimentation velocity	:	0.6 m/hr
Height of tube settler	:	1.85 m (without hopper)
Top area of tube settler	:	3.45 x 2.85 m
Angle of tube	:	60°
Type of tube deck media	:	Hexagonal shape
Volume of tube settler	:	18 m <sup>3</sup>
Design retention period	:	2.0 hrs
Surface loading rate (SLR)	:	1.5-3 m <sup>3</sup> /m <sup>2</sup> /hr

\*Adequate both tube settler working in parallel for a flow rate 15 m<sup>3</sup>/hr.

<b>VOLUME OF FILTER FEED TANK</b>	:	2.4x2.4x1.1 m=5.5 M <sup>3</sup>
-----------------------------------	---	----------------------------------

**SELECTION OF FILTER PUMP**

Average flow rate	:	15 m <sup>3</sup> /hr
Pump head	:	28 m
Required power for pump	:	7.5 HP, 3 Phase, 440 V
Suction/Delivery size	:	80 mm X 80 mm

\*Adequate for a flow rate 15 m<sup>3</sup>/hr.

**DESIGN OF PRESSURE SAND FILTER -2 No. (Working in parallel or one as a standby)**


Typical value of velocity for filter	:	10-20 m/hr
Area of sand filter	:	A= Q/v=15/15= 1 m <sup>2</sup> , r <sup>2</sup> = 1/3.14= 0.32, r = 0.564 m
Dia. of pressure sand filter	:	1200 mm
H.O.S.	:	2000 mm
Min. depth of filtering media	:	1200 mm
Depth of multi graded media	:	300+300+300+400 mm
Free space board provided	:	700 mm

**DESIGN OF ACTIVATED CARBON FILTER -2 No. (Working in parallel or one as a standby)**

Typical value of velocity for filter	:	10-20 m/hr
Area of sand filter	:	A= Q/v=15/15= 1 m <sup>2</sup> , r <sup>2</sup> = 1/3.14= 0.32, r = 0.564 m
Dia. of filter	:	1200 mm
H.O.S.	:	3000 mm
Bed depth	:	1500 mm
Qty. of activated carbon	:	600 kg
Iodine value of activated carbon	:	900+

\*Adequate both filter PSF & ACF in parallel for a flow rate 30 m<sup>3</sup>/hr.

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Auth. Signatory/ Director

**SLUDGE DRYING BEDS**

Size	:	6 m x 2.1 m x 1 m-1 No.
Size	:	3 m x 2.7 m x 0.8 m-2 No.
Sludge generation	:	Approx. 72 kg @ 360 KLD

Packed in HDPE bags and stored in a hazardous waste storage room.

**Miscellaneous information**

- Requirement of power:
 

Installed	:	45 HP
Operational	:	25 HP
- Requirement of manpower : 1 + 2 No.
- Requirement of land for E.T.P. : sufficient

**MODE OF DISCHARGE**

The industry will discharge its treated trade effluent on to land for plantation. The industry has developed plantation area (1.75 acre) as per Karnal technology.

Total discharge	:	120 kl/day
Water consumption	:	70 kl/acre
Total land area required	:	1.75 acre

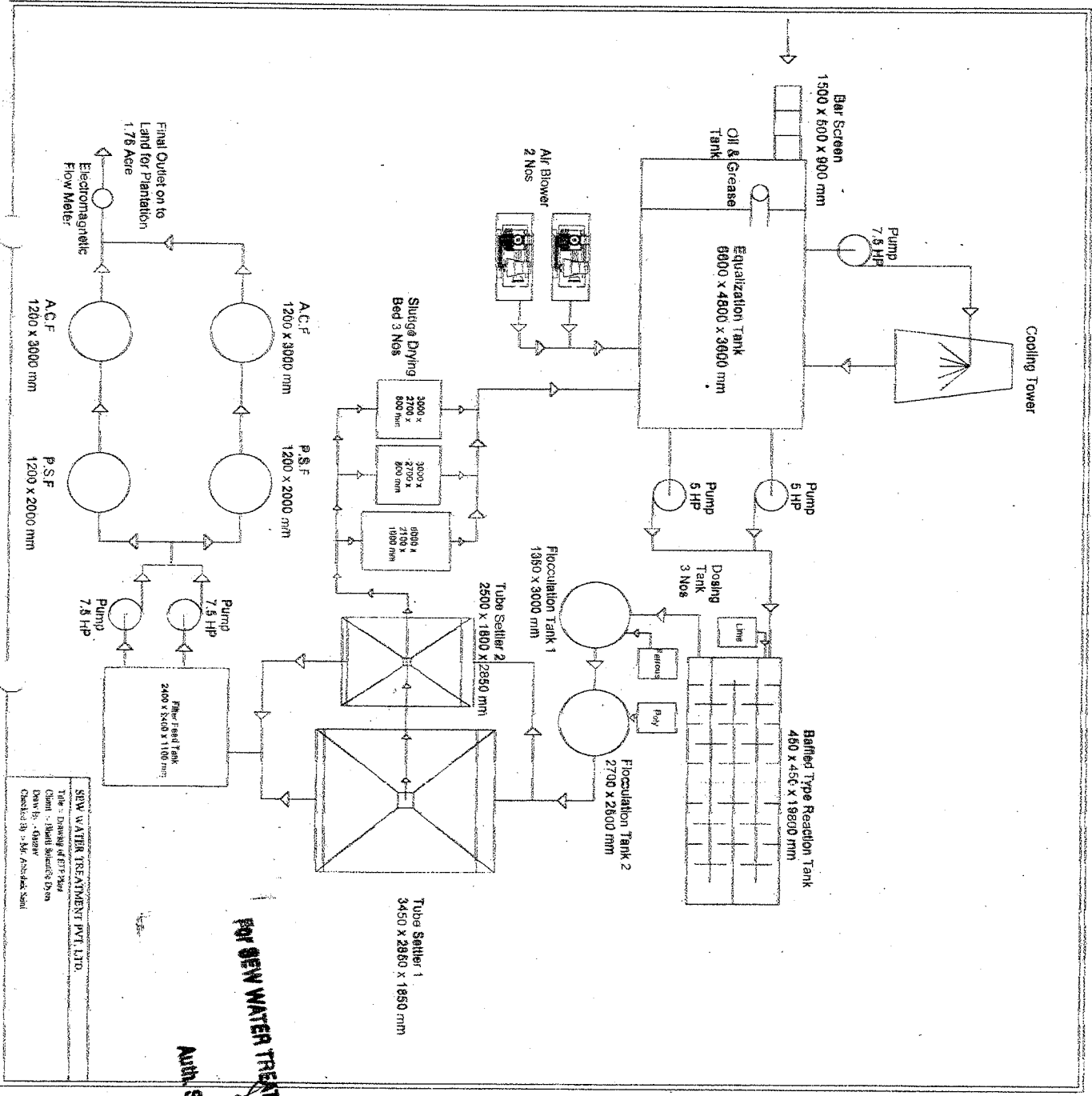
**SUMMARY AND CONCLUSION**

The study report for establishing the feasibility of an adequate ETP, in the previous pages throws light on the various aspects of the matter. It can be seen that the waste water from the dyeing unit can be treated as per the process mentioned to meet the parameters of the Punjab Pollution Control Board.

For SEW WATER TREATMENT PVT. LTD.

  
Auth. Signatory/ Director

24



SEW WATER TREATMENT PVT. LTD.

Title : Drawing of E.T.P. Plant

Client : Small Sewerage Dept.

Drawn By : Akshay

Checked By : Mr. Ashish Shah

FOR SEW WATER TREATMENT PVT. LTD.

Auth. Stationary/ Director

TRUE PHOTOCOPIED

ADVOCATE

GSTIN : 03ABKPB7959C1ZU  
TIN No. : 03881156488  
Bankers : State Bank of India

B.S.D.

M : 98555-14090, 98555-1491  
98555-14350  
Email : bhartiscientific086@gmail.com  
pruthi.rishi@gmail.com

# BHARTI SCIENTIFIC DYERS

RAHON ROAD, OPP. PREM COLONY, VILLAGE MEHARBAN, DISTT. LUDHIANA.

Ref. No.....

Dated...15.01.2024

The Environmental Engineer  
Punjab Pollution Control Board  
Regional office-3  
Ludhiana.

Subject: Regarding Sampling done by officers of the Board on 12-12-2024.

Respected Sir,  
With due respect, I, Tilak Raj, Prop. of Bharti Scientific Dyers, would like to bring your kind attention towards the recent water and Air Sampling done by the officers of the Board on 12-12-24. Sir, In that regards I would like to say that the water sample as collected by the officers of the Board when our factory work was just started. The Effluent Treatment Plant was just started and the Backwash Process of the ETP was to be done. The officers of the Board started collecting the samples without giving sufficient time for the Backwash Process. Due to which our water sample results were slightly inadequate and the water sample failed because at this.

GSTIN : 03ABKPB7959C1ZU  
 TIN No. : 03881156488  
 Bankers : State Bank of India

B.S.D.

M : 98555-14090, 98555-1491  
 98555-14350  
 Email : bhartiscientific086@gmail.com  
 pruthi.rishi@gmail.com

# BHARTI SCIENTIFIC DYERS

RAHON ROAD, OPP. PREM COLONY, VILLAGE MEHARBAN, DISTT. LUDHIANA.

Ref. No.....

Dated...15-01-2025

So Sir, its humble request to you to kindly take the water sample again.

Regarding the E.T.P. Capacity we have already submitted the feasibility report to the board which clearly show that the E.T.P plant is of more than required Capacity.

Sir, kindly pay attention to our request.

Thanking you  
 Jilau Raj

TRUE PHOTOCOPY

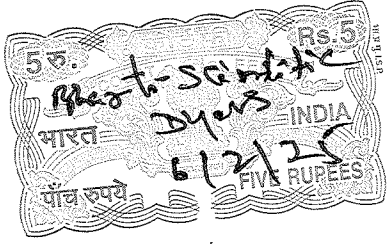
ADVOCATE



VAKALATNAMA

BEFORE NATIONAL GREEN TRIBUNAL PRINCIPAL  
BENCH, NEW DELHI

CASE NO. OA 1137 / 2024



Neelam Rani & ors.

....Petitioner /Appelnat's

VERSUS

State of Punjab

... Respondents

Know all to whom these presents shall that I/We the undersigned appoint

**SAMARTH SAGAR, SANKALP SAGAR, SUNIL KUMAR & AJAY SHARMA**  
**ADVOCATES**  
**LAWYER CHAMBER No.16**  
**Punjab & Haryana High Court**  
**Chandigarh-160001**



to be the Advocate for the Respondent No.4 (s) in the above mentioned case to do all the following acts, deeds all things or any of them that to say:-

1. To act, appear & plead in the above mentioned case in this Court in this Court or any other Court in which the same may be tried or heard in the first instance in appeal, Letters Patent Appeal, Review, Revision, Execution or in any other stage of its progress until its final decision.
2. To present sign & verify pleadings, appeals, Letters Patent Appeals, Cross-objections or petitions execution review, revision, withdrawal, compromise, other petitions, affidavits, other documents as shall be deemed necessary or advisable for the prosecution of the said case in all its stages.
3. To withdraw or compromise the said case or submit to arbitration any differences or dispute that shall arise touching or in any manner relating to the said cause.
4. To deposit, draw and receive moneys and grant receipts thereof by way of costs, refund or balance of security and other miscellaneous expenses from court of parties and to do all other acts and things which may be necessary to be done for the progress and in the course of the prosecution of the said case.
5. To employ any other Advocate authorize him to exercise the power and authorities and to confer upon such advocate, whenever he may think fit to do so.

AND I/WE hereby agree to ratify whatever the Advocate or his substitute shall do in the premises and in this connection.

AND I/WE hereby agree not to hold the Advocate or his substitute shall do in the premises and in this connection.

AND I/WE hereby agree not to hold the Advocate responsible for not intimating the date of hearing of the case & for not applying any certified copy of the judgment on the decision of the case.

AND I/WE hereby agree that the Advocate will not be bound to appear for us if the case is transferred to any other Court or the Court sits at any place other than its normal place of sitting and if any application or Petition is to be filed in the case, the Advocate will be entitled to fresh fee as paid in the case.

AND I/WE hereby agree that in the event of the whole or any part of the fee agreed by me/us to be paid to the Advocate remaining unpaid; he shall be entitled to withdraw from the prosecution from the said cause until the same is paid.

IN WITNESS WHERE OF I/WE hereunder set my/our hands of these presents the contents of which have been explained to and understood by me/us this the 8th day of Febr 2025

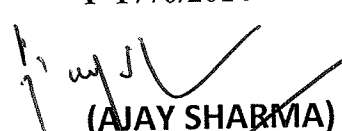
Accepted

  
  
  
(SAMARTH SAGAR)(SANKALP SAGAR) & (SUNIL KUMAR)

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M-9988887985

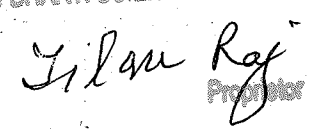
Advocates  
P-1770/2014

P-1058/2012

  
(AJAY SHARMA)  
ADVOCATE

PH-4669/2023

For BHARTI SCIENTIFIC DYERS

  
Proprietor

CLIENT'S