

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

ORIGINAL APPLICATION NO. 850 OF 2018

IN THE MATTER OF:

Residents of Saila Khurd, Raniala ...Applicant

Versus

State of Punjab & Ors. ...Respondents

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PLACE: NEW DELHI

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

ORIGINAL APPLICATION NO. 850 OF 2018

IN THE MATTER OF:

Residents of Saila Khurd Raniaala ...Applicant

Versus

State of Punjab & Ors. ...Respondents

**REPLY TO OA NO. 850 OF 2018 AND THE JOINT
COMMITTEE REPORT DATED 7.05.2019 ON BEHALF OF
RESPONDENT NO. 3, M/S KUANTUM PAPERS LTD**

TO,

THE HON'BLE CHAIRPERSON AND HIS COMPANION JUDGES
OF THE LEARNED NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI.

THE HUMBLE REPLY OF THE ANSWERING
RESPONDENT HEREIN:

MOST RESPECTFULLY SHOWETH:

- I. That the present Original Application was registered on the basis of letter petition with the allegation of pollution being caused by Respondent No. 3 allegedly affecting the inhabitants of Saila Khurd, Raniaala, Saila Kalan, Jassoval, Majari, Paddi Khusi and Pansara villages of District Hoshiarpur, Punjab on account of discharge of trade effluents by the Respondent No. 3, M/s Kuantum Papers Ltd.

- II. This Hon'ble Tribunal vide Order dated 19.12.2018, without impleading the Respondent No. 3, directed a Joint Committee comprising of Central Pollution Control Board (CPCB) and Punjab Pollution Control Board (PPCB) to furnish a Joint Report and an Action Taken Report.
- III. In furtherance of the Order dated 19.12.2018, the Joint Committee conducted an inspection on 17.01.2019 and furnished a Report before this Hon'ble Tribunal vide email dated 13.02.2019.
- IV. This Hon'ble Tribunal vide Order dated 14.03.2019, after considering the Joint Committee Report dated 13.02.2019, directed the said Joint Committee to assess the extent of damage caused and impose Environmental compensation. This Hon'ble Tribunal further directed the Joint Committee to furnish an Action Taken Report within one month.
- V. Aggrieved by the Order dated 14.03.2019 the answering Respondent herein filed Civil Appeal No. 5957 of 2019 being '*M/s Kuantum Papers Ltd vs The State of Punjab & Anr.*' before the Hon'ble Supreme Court of India.
- VI. The Hon'ble Supreme Court vide Order dated 26.07.2019 was pleased to issue Notice in the Civil Appeal and directed that the

proceedings before the State Pollution Control Board (PPCB in this case) should continue, however the final order passed by the PPCB should not be given effect to without permission of the Hon'ble Supreme Court.

The said Order is extracted hereinbelow for the ready reference of this Hon'ble Court:

“Permission to file civil appeal is granted.

Issue notice.

Subject to the final decision, let the proceedings by Punjab Pollution Control Board go on. However, in case any order is passed the same may not be given effect to without permission from this Court.”

VII. On being appraised of the Order dated 26.07.2019 passed by the Hon'ble Supreme Court, this Hon'ble Tribunal vide Order dated 30.07.2019 adjourned the present OA *sine die* and directed that *“The matter may be listed for hearing before the Tribunal after the same is disposed of by the Hon'ble Supreme Court.”*

VIII. The Hon'ble Supreme Court vide Order dated 23.08.2024 disposed of the said Civil Appeal No. 5957 of 2019 and requested this Hon'ble Tribunal to proceed further and pass final Orders in the present OA. The Hon'ble Supreme Court further directed that the

interim Order dated 26.07.2019 passed by the Hon'ble Supreme Court shall continue till further orders passed by this Hon'ble Tribunal after giving full opportunities to all the parties.

- IX.** Pursuant to the directions passed by the Hon'ble Supreme Court, the present OA was listed on 23.09.2024 wherein the answering Respondent, *M/s Kuantum Papers Ltd* was impleaded as Respondent No. 3, and is filing the present Reply in furtherance of the Order dated 23.09.2024.
- X.** The answering Respondent at the very outset submits that the averments made in the letter petition are concocted, misleading, baseless and factually incorrect and are thus denied in *toto* except specifically admitted hereinafter.

XI. BRIEF FACTS:

- i.** That the Answering Respondent is a company incorporated in India under the Companies Act, 1956 having its registered Office at Paper Mill Saila Khurd, 144 529, District Hoshiarpur, Punjab and Head Office at W1A, First Floor, Tower A, Godrej Eternia, Plot No.70, Industrial Area Phase 1, Chandigarh, 160002 and is engaged in the business of manufacturing and trading of various kind of papers using wood, bagasse, wheat straw, sarkanda, veneer etc.

That the company is into the business of paper manufacturing since 1980 and is having a consented capacity of 450MT/day. The unit is having a chemical recovery plant for black liquor solids by way of a caustic soda recovery and a co-generation plant of MW with Rick Husk, Coal & Bio-gas as fuel. That consented trade effluent discharge of the unit is 17,000 m³/day.

- ii.** The Respondent herein was granted an Authorization on 10.03.2014 under Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016 by the Punjab Pollution Control Board (hereinafter referred to as "PPCB") which was valid till 09.03.2019. The said authorization was renewed thereafter on 12.04.2019.
- iii.** The PPCB granted the Consent To Operate (CTO) dated 29.08.2014 to the Respondent, for an outlet for discharge of the effluent under Section 25 of the Water Act, 1974 from the PPCB. The said CTO was valid till 31.03.2019. That the consented discharge trade effluent discharge for the unit was 17,000 KLD. The Respondent was also granted the Consent To Operate (CTO) dated 29.08.2014 under Section 21 of the Air Act by the PPCB which was valid till 31.03.2019.

A Copy of the CTO dated 29.08.2014 issued by the PPCB under the Water Act is enclosed herein as **ANNEXURE R-1 at pages 49 to 53**.

A Copy of the CTO dated 29.08.2014 issued by the PPCB under the Air Act is enclosed herein as **ANNEXURE R-2 at pages 54 to 59**.

- iv. The Respondent has on a periodic basis got samples tested to ensure compliance with the standards set under the Air Act for discharge of emissions; and the Water Act for discharge of effluents. The Answering Respondent has also installed an Online Continuous Effluent Monitoring System ("OCEMS"), which has been calibrated as per the standards set out by the CPCB and/or PPCB, and is providing real- time data to the PPCB regarding the effluent discharge from the Respondents plant at Saila Khurd.

A Copy of the Periodic Test Reports conducted by the Respondent No. 3 through authorized laboratories is enclosed herein as **ANNEXURE R-3 at pages 60 to 71**.

- v. That on a Complaint received from one Sukhjinder Singh, the PPCB without compliance of Section 21(3) of the Water Act and/or serving a Notice on the Respondent No. 3, visited the Plant of the

Respondent on 27.05.2018 and collected samples from inside the plant i.e. from the ETP as well as the pipes leading from the outlet of the ETP for irrigation in the field of one Sh. Satnam Singh. The Samples were collected by the PPCB without sealing and marking the same as mandatorily required under Section 21(3)(c) and further without dividing the sample into two parts as required under Section 21(3)(b).

Be that as it may, the Test Reports dated 08.06.2018 of the aforesaid samples collected state that the samples collected from ETP are within the prescribed limits, however samples collected from the end of the pipes leading to the field of Sh. Satnam Singh are marginally beyond limit i.e. the BOD was 34mg/l as against the permission limit of 30 mg/l.

- vi. That the Answering Respondent obtained Consent to Establish (CTE) dated 23.07.2018 under Section 25 of the Water Act and Section 21 of the Air Act for modernization of its Plant.

A Copy of the Consent to Establish (CTE) dated 23.07.2018 issued by the PPCB under the Water Act is enclosed herein as **ANNEXURE R-4 at pages 72 to 81.**

vii. That the CPCB issued the '*Water sampling and preservation techniques*' wherein it has laid down a SOP/guidelines for collection of samples from industries. The Guidelines state that there are 3 types of sampling, namely Grab, Composite and Integrated. The SOP defines the different methods of sampling and as to in what circumstance which type of sampling is ideal.

The answering Respondent submits that as per the Guidelines, Composite samples ought to have been collected, however the PPCB collected Grab Samples despite knowing that the source / liquid matrix is not constant and varies from time to time in the Respondent's Plant, depending on plant operations and other factors.

A Copy of the '*Water sampling and preservation techniques*' issued by the CPCB is enclosed herein as **ANNEXURE R-5** at **pages 82 to 112**.

viii. Pursuant to the test reports of the sample collected on 27.05.2018, PPCB issued a Show Cause Notice dated 06.09.2018 under Section 33-A of the Water Act, 1974 wherein the following issues/discrepancies were raised:

- (i) Series of alerts were received on the CPCB alert system from 5.5.2018 to 30.08.2018 regarding spikes in Bio Chemical Oxygen Demand (BOD).
- (ii) Though the sample collected from Effluent Treatment Plant (BOD - 26mg/l) are within prescribed limits but sample collected from the pipes leading from outlet of ETP (BOD - 34 mg/l) in the field of Sh. Satnam Singh were beyond the prescribed limit of 30mg/l.

The date of personal hearing for the said notice was fixed for 18.09.2018.

A Copy of the Show Cause Notice dated 6.09.2018 issued by the PPCB is enclosed herein as **ANNEXURE R-6 at pages 113 to 114**.

- ix.** In response to the Notice dated 6.09.2018, the Respondent duly submitted a Reply dated 14.09.2018 to the PPCB stating that *firstly*, replies were sent to Central Pollution Control Board for each SMS alert for ETP vide emails and that the 5 times higher value of BOD on 5.5.2018 was due to a technical fault in the online effluent monitoring system. *Secondly*, it was submitted that the higher value of BOD as 34mg/l from the sample collected at Satnam Singh's field was due to contamination in his field as the

same treated effluent having BOD level of 26mg/l was leading to the pipes of irrigation network.

A Copy of the Reply dated 14.09.2018 sent by the Respondent to the PPCB is enclosed herein as **ANNEXURE R-7 at pages 115 to 116**.

- x. In furtherance of the Notice dated 6.09.2018, a hearing was conducted on 18.09.2018 before the Chairman, PPCB wherein it was decided that Chief Environmental Engineer, Jalandar will coordinate the visit of Punjab Biotechnology Incubator ("**PBTI**") to the plant and PBTI will collect samples of the treated trade effluent and submit a report to the PPCB.

A Copy of the proceedings of personal hearing on 18.09.2018 dated 26.09.2018 is annexed herewith and marked as **ANNEXURE R-8 at pages 117 to 118**.

- xi. In furtherance of the directions dated 18.09.2018, officials of PPCB and PBTI visited the plant of the Respondent on 15.11.2018 without serving any Notice as mandated under Section 21(3)(a) and collected effluent samples *inter alia* from the outlet of ETP, and from an agricultural field in Saila Kalan having low lying areas where effluent of the industry was accumulated.

It is pertinent to mention that the said Samples were neither divided into two parts, nor placed in a sealed container with signature of the representatives of the Respondent in complete violation of Section 21(3)(b) & (C) of the Water Act, and thus any subsequent Test results thereof are inadmissible in evidence as per Section 21(2) of the Water Act.

xii. While the aforesaid proceedings before the PPCB were pending, the present OA was registered before this Hon'ble Tribunal based on a letter stating that pollution is being caused by the Respondent No. 3 herein affecting inhabitants of Saila Khurd, Raniala, Saila Kalan, Jassoal, Majari, Paddi Khusi and Pensara village, District Hoshiarpur by discharging polluted air and water effluents.

xiii. This Hon'ble Tribunal vide Order dated 19.12.2018 constituted a Joint Committee comprising of CPCB and PPCB and directed it to furnish a report based on factual aspect and action taken. It is pertinent to mention that the Respondent herein was not made a party to the present OA.

A Copy of the Order dated 19.12.2018 passed by this Hon'ble Tribunal in the present OA is annexed herewith and marked as **ANNEXURE R-9 at pages 119 to 120.**

- xiv. That the Joint Committee constituted by this Hon'ble Tribunal conducted an Inspection dated 17.01.2019 in furtherance of the Order dated 19.12.2018 passed by this Hon'ble Tribunal.
- xv. That PPCB issued another Show Cause Notice dated 1.02.2019 to the Respondent herein in furtherance of the inspection dated 15.11.2018 wherein the following results were allegedly found:

LOCATION SAMPLING POINT	OF	BOD (mg/l)	COD (mg/l)
Outlet of ETP		82	612
From land of Manjit Singh, Village Saila Kalan where effluent was found stagnated in the Low lying area		243	1429
Prescribed Limit		30	350

That the said Notice dated 1.02.2019 stated that after analyzing the results the ETP was found to be not adequate to treat the effluent and that untreated waste water was being discharged into Agricultural land for irrigation purposes. An opportunity of personal hearing on 5.02.2019 was given to the Respondent herein.

A Copy of the Show Cause Notice dated 1.02.2019 issued by the PPCB is annexed herewith and marked as **ANNEXURE R-10 at pages 121 to 124.**

xvi. Pursuant to the Notice dated 1.02.2019, during the hearing conducted on 05.02.2019 before PPCB, the PPCB issued the following recommendations:

“1) The industry shall engage CPPRI, Saharanpur and get its existing ETP and chemical recovery plant audited and a proposal be prepared for up-gradation required in exiting ETP and chemical recovery plant, so as to meet the effluent standards as prescribed under the law and the report be submitted to the PPCB within 21 days

2) The industry shall prepare an Irrigation Management Plan from a consultant of good repute for the whole of the command area available within the industry and outside the industry where treated effluent of the industry is utilized onto land for irrigation purpose within 15 days and thereafter get it verified and approved from the Department of Soil & Water Conservation, Punjab and submit the same to the Punjab Pollution Control Board within 21 days.

3) The industry shall get the ground water study of the whole command area where the treated effluent is utilized onto land for irrigation purpose from any expert institute in the field of Hydrogeology and submit report to Punjab Pollution Control Board within 21 days.

- 4) *The industry shall prepare a Standard Operating Procedure (SOP) for the operation of ETP and Chemical Recovery Plant (CRP) and shall maintain the record of operation of ETP on daily basis and shall submit monthly record duly verified by the Designated Authority of the industry to the Punjab Pollution Control Board.*
- 5) *The Industry shall obtain the permission / NOC from Central Ground Water Authority (CGWA) regarding abstraction of fresh water from all the existing tube-wells in the industry.*
- 6) *The industry shall install electromagnetic flow meter at the inlet of the ETP before the equalization tank within 21-days.*
- 7) *The industry shall commission the electromagnetic Chlorine Free bleaching (ECF) in the agro based production by 31-03-2019.*
- 8) *The industry shall install and commission a new soda recovery plant of 500 TPD capacity dry black liquor solids by 31/03/2020.”*

A Copy of the proceedings of personal hearing on 05.02.2019 dated 22.02.2019 is annexed herewith and marked as **ANNEXURE R-11** at pages 125 to 129.

- xvii.** That the Answering Respondent No. 3 submitted a written reply dated 6.02.2019 to the MOM dated 5.02.2019 clarifying certain technical grounds and requested that resampling may be done after the commissioning of the chlorine dioxide plant in April 2019.

A Copy of the Reply dated 6.02.2019 submitted by the Respondent to the Notice dated 1.2.2019 and the proceedings dated 05.2.2019 is

annexed herewith and marked as **ANNEXURE R-12 at pages 130 to 140.**

- xviii.** That in furtherance of the Order dated 19.12.2018, the Joint Committee furnished a report before this Hon'ble Tribunal vide email dated 13.02.2019. That as per the Joint Committee Report dated 13.02.2019, the unit was purportedly non complying with the discharge norms for the BOD, COD and TSS parameters.

The Joint Committee thus gave the following recommendations:

- “1. The Unit should augment and upgrade their ETP so as to meet the effluent discharge norms.*
- 2. The unit should submit adequacy assessment report of their ETP prepared by reputed institutes/organisations like IIT/CPPRI/NEERI/NIT etc. and should comply with the recommendations of the report.*
- 3. The unit should install equalization tank with air mixing system at the ETP.*
- 4. The unit should install flow measuring device at the inlet of ETP and should maintain logbook for the same.*
- 5. The unit should connect all the flow meters installed at the outlet of ETP to CPCE server.*
- 6. The Unit should submit ash management plan to PPCB and should dispose the ash in a scientific manner.*
- 7. The unit should submit irrigation water management plan to PPCB.*

8. The Unit should expedite the proposed work for elemental chlorine free bleaching in the agro based production by April 2019.”

A Copy of the Joint Committee Report dated 13.02.2019 filed in the present OA is annexed herewith and marked as **ANNEXURE R-13** at pages 141 to 147.

xix. That the Answering Respondent herein vide letter dated 21.02.2019 requested PPCB to furnish copy of Joint Committee Report furnished before this Hon'ble Tribunal.

xx. That PPCB vide letter dated 1.03.2019 intimated the answering Respondent the guidelines/recommendations issued by PPCB during hearing dated 5.2.2019 and directed that a compliance report be submitted of the same.

A Copy of the letter dated 1.03.2019 issued by the PPCB to the Respondent No. 3 is annexed herewith and marked as **ANNEXURE R-14** at pages 148 to 150.

xxi. That the Respondent herein vide letter dated 7.3.2019 apprised the PPCB in detail of the short term and long terms measures taken by the company in compliance of the meeting dated 05.2.2019. It is pertinent to mention that the Respondent by abundant caution, without even being aware about the contents of the Joint Committee

Report dated 13.02.2019 requested that the measures taken by the company be considered by the Joint Committee while preparing its Report on the basis of the inspection dated 17.1.2019.

A Copy of the letter dated 07.03.2019 issued by the Respondent No. 3 in compliance of the MOM dated 05.02.2019 by the PPCB is annexed herewith and marked as **ANNEXURE R-15 at pages 151 to 166**.

xxii. This Hon'ble Tribunal vide Order dated 14.03.2019 directed the Joint Committee to assess the damage caused in monetary terms on settled principles requiring the compensation to be deterrent and adequate to meet the cost of restoration.

A Copy of the Order dated 14.03.2019 passed by this Hon'ble Tribunal in the present OA is annexed herewith and marked as **ANNEXURE R-16 at pages 167 to 170**.

xxiii. That the PPCB constituted a Joint Committee vide letter dated 22.03.2019 to the visit the industry to assess the extent of damage caused in monitoring terms on settled principles which will be adequate to meet with the cost of restoration in furtherance of the Order dated 14.03.2019.

xxiv. That the PPCB issued another Show Cause Notice (SCN) dated 25.03.2019 to the Respondent herein in furtherance of the Order dated 14.03.2019 passed by this Hon'ble Tribunal. It is pertinent to mention that despite the Respondents request dated 21.2.2019 to be supplied an entire copy of the Joint Committee Report, only findings were reproduced in the Notice dated 25.03.2019. Thereafter an opportunity of personal hearing on 09.04.2019 was given to the Respondent herein.

A Copy of the SCN dated 25.03.2019 issued by the PPCB is annexed herewith and marked as **ANNEXURE R-17 at pages 171 to 173.**

xxv. The Respondent No. 3's industry was visited by the Joint Committee on 01.04.2019 wherein it observed as under:

- Electromagnetic flow meter at the inlet of ETP before equalization tank was not installed
- Elemental Chlorine Free Bleaching (ECF) in the agro based unit had not been commissioned
- The work of adding an equalization tank was in progress
- Rapid mixing mechanism for proper and complete reaction of chemicals to the biological treated effluent was not done
- No steps were taken for better removal of TSS
- No steps for regular removal of sludge were taken.

- xxvi.** That the Respondents submitted a Reply/Submissions dated 08.4.2019 stating that most of the directions provided by the PPCB have been complied with and others are in progress.
- A Copy of the Reply dated 08.04.2019 is annexed herewith and marked as **ANNEXURE R-18 at pages 174 to 179.**
- xxvii.** That a Personal hearing dated 9.04.2019 was given to the Respondent in furtherance of Show Cause Notice (SCN) dated 25.3.2019 wherein certain issues were raised and clarification were to be given by the industry on the next date of hearing i.e. 24.04.2019.
- A Copy of the proceedings of personal hearing on 09.04.2019 dated 15.04.2019 is annexed herewith and marked as **ANNEXURE R-19 at pages 180 to 184.**
- xxviii.** That the Irrigation Management Plan of the Respondent No. 3 was approved by Soil and Water Conservation Department, Punjab on 10.04.2019.
- A Copy of the Irrigation Management Plan dated 10.04.2019 as approved by the Soil and Water Conservation Department, Punjab is annexed herewith and marked as **ANNEXURE R-20 at pages 185 to 187.**

xxix. That the Respondent vide reply dated 23.04.2019 to the Notice dated 25.03.2019 stated the short term and long term measures taken the industry to reduce its footprint on the environment and improving the values of the effluent discharge by the company.

A Copy of the Reply dated 23.04.2019 filed by the Respondent No. 3 before the PPCB is annexed herewith and marked as **ANNEXURE R-21 at pages 188 to 192.**

xxx. That during the hearing dated 24.04.2019, the answering Respondent informed the PPCB that Rs.10 Lakhs bank guarantee was already submitted by the Respondent as an assurance to comply with the Water Act. The PPCB *inter alia* directed as under:

- (i) Respondent to curtail 10% production capacity i.e. it shall produce not more than 337.5 TPD on an average (375-37.5TPD).
- (ii) Sealing of Lignin Precipitation Plant of the Respondent
- (iii) EE, Hoshiarpur to encash 10,00,000/- bank guarantee
- (iv) All discrepancies to be removed with 3 months
- (v) The Respondent to furnish a fresh Bank guarantee of Rs.50,00,000/-.
- (vi) Hydro geological study to be conducted of the industry.

A Copy of the proceedings of personal hearing on 24.04.2019 dated 25.04.2019 is annexed herewith and marked as **ANNEXURE R-22 at pages 193 to 199.**

- xxxi.** That the PPCB vide letter dated 25.04.2019 directed the Respondent to comply with the directions to curtail 10% production capacity i.e. it shall produce not more than 337.5 TPD on an average (375-37.5 TPD) and to Seal the Lignin Precipitation Plant.

A Copy of the letter dated 25.04.2019 issued by the PPCB is annexed herewith and marked as **ANNEXURE R-23 at pages 200 to 209.**

- xxxii.** That the PPCB submitted an Action Taken Report dated 1.05.2019 before this Hon'ble Tribunal in compliance of the Order dated 14.3.2018.

A Copy of the Action Taken Report dated 1.05.2019 by the PPCB submitted before this Hon'ble Court is annexed herewith and marked as **ANNEXURE R-24 at pages 210 to 216.**

- xxxiii.** That the Joint Committee vide Report dated 7.05.2019 concluded that the unit is allegedly non-complying with the effluent discharge norms for BOD, COD, TSS parameters. The final treated effluent

showed BOD 106 mg/l (against 30 mg/L), COD 608 mg/1 (against 350 mg/1) and TSS 87 mg/1 (against 50 mg/1). The treated extent is not fit for the irrigation purpose. The Joint Committee further calculated environmental compensation to the tune of Rs. 282.60 Lakhs as per the CPCB methodology for a period of 309 days.

A Copy of the Joint Committee Report dated 7.05.2019 is annexed herewith and marked as **ANNEXURE R-25 at pages 217 to 228**.

A Copy of the CPCB Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund is annexed herewith and marked as **ANNEXURE R-26 at pages 229 to 250**.

xxxiv. The Respondent vide letter dated 20.05.2019 requested PPCB to supply a copy of the Joint Committee Report submitted before this Hon'ble Tribunal.

xxxv. That the PPCB renewed the CTO granted to the Respondent No. 3 herein on 04.06.2019 under the Water & Air Acts, which was valid for a period of one year i.e. till 03.6.2020. It is pertinent to mention that the CTO is granted by the Pollution Control Boards only after sampling is conducted and the test results are thoroughly analyzed by the Pollution Control Boards. The very fact that the Respondent No. 3 was granted a CTO dated 4.06.2019 gives impetus to the

Respondent No. 3's submission that all the treated waste water discharge from the plant is well within the prescribed limits.

A Copy of the CTO dated 4.06.2019 issued by the PPCB under the Water & Air Acts are annexed herewith and marked as **ANNEXURE R-27 [Colly] at pages 251 to 271.**

xxxvi. That aggrieved by the Order dated 14.03.2019 the answering Respondent herein filed the Civil Appeal No. 5957 of 2019 being '*M/s Kuantum Papers Ltd vs The State of Punjab & Anr.*' before the Hon'ble Supreme Court.

A Copy of the Civil Appeal No. 5957 of 2019 being '*M/s Kuantum Papers Ltd vs The State of Punjab & Anr.*' filed before the Hon'ble Supreme Court is annexed herewith and marked as **ANNEXURE R-28 at pages 272 to 317.**

xxxvii. The Hon'ble Supreme Court vide Order dated 26.07.2019 was pleased to issue notice in the matter and directed that the proceedings before the State Pollution Control Board (PPCB in this case) should continue, however the final Order passed by the PPCB should not be given effect to without permission of the Hon'ble Supreme Court.

A Copy of the Order dated 26.07.2019 passed by the Hon'ble Supreme Court in Civil Appeal No. 5957 of 2019 being '*M/s Kuantum Papers Ltd vs The State of Punjab & Anr.*' is annexed herewith and marked as **ANNEXURE R-29 at pages 318** .

- xxxviii.** That on being appraised of the Order dated 26.07.2019 passed by the Hon'ble Supreme Court, this Hon'ble Tribunal vide Order dated 30.07.2019 adjourned the present OA sine die and directed that "*The matter may be listed for hearing before the Tribunal after the same is disposed of by the Hon'ble Supreme Court.*".
- xxxix.** That the Respondent No. 3 vide letter dated 5.08.2019 provided PPCB with a status update on the compliance of the directions passed by the PPCB on 24.04.2019. The Respondent No. 3 stated that the Effluent Treatment Plant was upgraded in accordance with the recommendations of the Board and the Respondent No. 3 further, *suo moto* added several other components to make the ETP more effective at an additional cost of Rs. 13.42 Crores.
- xl.** That the Personal hearing dated 8.08.2019 was rescheduled to 24.09.2019, wherein a Committee was constituted to visit the industry and verify the compliances made by the Respondent No. 3 and submit a report for the same.

xli. That the Respondent No. 3 industry was again visited by the members of the PPCB on 10.02.2020 to check the various compliances made by the industry under the Water Act and to further monitor the ETP. The PPCB vide Report dated 11.08.2020 verified the compliances done by the industry of the decisions taken in hearing dated 5.02.2019 and 24.04.2019.

A Copy of the Report dated 11.08.2020 by the PPCB after the Site Visit dated 10.02.2020 is annexed herewith and marked as **ANNEXURE R-30 at pages 319 to 328.**

xlii. The Hon'ble Supreme Court vide Order dated 23.08.2024 disposed of the Civil Appeal No. 5957 of 2019 and directed this Hon'ble Tribunal to finally dispose of the present OA. The Hon'ble Supreme Court further directed that the interim Order dated 26.07.2019, shall continue till further orders that the Tribunal may pass after giving full opportunities to all the parties.

A Copy of the Order dated 23.08.2024 passed by the Hon'ble Supreme Court in Civil Appeal No. 5957 of 2019 being '*M/s Kuantum Papers Ltd vs The State of Punjab & Anr.*' is annexed herewith and marked as **ANNEXURE R-31 at pages 329 to 333.**

- xliii.** That the Respondent No. 3 unit was inspected by the CPCB again on 23.01.2023. The Inspection Report clearly indicates that the unit is complying with all the prescribed norms and states that *“the unit is meeting with the CPCB prescribed norms of effluent discharge”*. The Report further indicates that the Unit has installed OCEMS at mixing tank, Chemical Recovery Plant, Turbo Spin Flash Calcinations, Power Boilers etc. The Report further concludes that *“the results of the ground water monitoring conducted in surrounding villages indicate that there is no ground water contamination due to Paper mills”*.
- A Copy of the Inspection Report of the Inspection conducted by the CPCB on 23.01.2023 ' is annexed herewith and marked as **ANNEXURE R-32 at pages 334 to 345**.
- xliv.** That pursuant to the Inspection Report dated 23.01.2023, CPCB issued directions dated 17.05.2023 under Section 18 of the Water Act to the PPCB for compliance.
- A Copy of the Directions dated 17.05.2023 issued to the PPCB by the CPCB is annexed herewith and marked as **ANNEXURE R-33 at pages 346 to 350**.

xlv. That the counsel of the Respondent No. 3 vide letter dated 19.10.2024 requested the Member Secretary, CPCB, Member Secretary, PPCB and the Chief Environmental Engineer PPCB to furnish the copies of the following documents:

- i. Copies of the Test Reports of the samples collected on 27.05.2018, 15.11.2018 and 17.01.2019;
- ii. Copies of the Chain of custody of the samples collected on 27.05.2018, 15.11.2018 and 17.01.2019 from the point of collection of the sample till the tests were conducted by the authorized laboratories;
- iii. Copies of the notices given to the Respondent No. 3 on 27.05.2018 and 15.11.2018 as required under Section 21(3)(a) Water Act, 1974.

A Copy of the letter dated 19.10.2024 sent by the counsel of the Respondent No. 3 to the CPCB and PPCB is annexed herewith and marked as **ANNEXURE R-34 at pages 351 to 354.**

xlvi. That the PPCB vide letter dated 8.11.2024 supplied the copies of the Test Reports (only) of the samples collected on 27.05.2018, 15.11.2018 and 17.01.2019 to the Respondent No. 3. It is pertinent to mention that the PPCB neither supplied a copy of the Chain of custody of the samples nor the copies of the Notices given to the

Respondent No. 3 which is a mandatory statutory requirement under Section 21(3)(a) of the Water Act, 1974.

A Copy of the letter dated 8.11.2024 sent by the PPCB to the Respondent No.3 is annexed herewith and marked as **ANNEXURE R-35 at pages 355 to 361.**

XII. PRELIMINARY SUBMISSIONS:

THE ANSWERING RESPONDENT BEFORE GOING INTO THE MERITS OF THE TEST RESULTS, SEEKS TO RAISE THE FOLLOWING PRELIMINARY OBJECTIONS:

The Joint Committee Report has recommended levy of Environmental compensation on the alleged violation by the Respondent for a period of 309 days based on three (3) inspections Conducted at the premises of the answering Respondent on 27.05.2018 & 15.11.2018 by the PPCB and on 17.01.2019 by the Joint Committee constituted under Orders of this Hon'ble Tribunal.

A. NON-COMPLIANCE OF MANDATORY PROVISIONS UNDER SECTION 21 OF THE WATER ACT

- Section 21 of the Water Act stipulates the requisite statutory procedure to be followed during taking of samples from a Plant and the manner in which the same is to be analysed.
- Section 21(2) makes the provisions of sub-section (3) mandatory, in absence of compliance of which the Test Results '*shall not be admissible in evidence in any legal proceedings*'.
- It is submitted that the PPCB failed to comply with any of the statutory requirements contemplated under Sections 21(3) and 22 of the Water (Prevention and Control of Pollution) Act, 1974 on or before the Site visits conducted on 27.05.2018 & 15.11.2018, during which the samples were collected and analyzed, due to the following reasons:
 - i. No Notice was served by the PPCB on or before the samples being collected on or before 27.05.2018 & 15.11.2018 are mandatorily required under Section **21(3)(a)** of the Water Act.
 - ii. The Samples collected by the PPCB were not divided into two parts as required under **Section 21(3)(b)**, and the said substantive non-compliance takes away the right of the answering Respondent under Section 21(3)(e) to have the second container sent for testing to a laboratory established under Section 52 of the Water Act.

- iii. The Samples were collected by the PPCB without sealing and marking the same as mandatorily required under **Section 21(3)(c)**, thus leaving the sample collected open to contamination, invariably resulting in incorrect and wrong Test Results.

It is further submitted that the PPCB did not store the Samples collected in the proper manner as per the CPCB Guidelines, in as much as, the PPCB personals did not carry any ice box or chemical stove added to the effluent to ensure that the values of the Trade Effluent during transit do not get altered and especially to the prejudice of the Answering Respondent Industry.

- iv. The Samples taken by the PPCB on 27.05.2018 were not sent to a laboratory established under Section 17 of the Water Act, as required under **Section 21(3)(d)** thereof. The Test Result communicated to the Respondents by the PPCB vide their letter dated 8.11.2024 does not furnish the Chain of Custody as to how the samples were collected, stored and analyzed.

Thus, the answering Respondent submits that due to the aforesaid reason alone, the Test Result in furtherance of the Samples collected by the PPCB on 27.05.2018 and 15.11.2018 are to be entirely discarded being inadmissible in Evidence in any legal proceedings as per Section 21(2) of the Water Act, due

to non-compliance of the mandatory statutory *pre-requisites* under Section 21(3)(a), (b), (c) and (d) of the Water Act, 1974.

B. NON-COMPLIANCE OF CPCB GUIDELINES OF ‘WATER SAMPLING & PRESERVATION TECHNIQUES’

In addition the Preliminary objection in regard to glaring and blatant violation of the provisions of Section 21 of the Water Act, the answering Respondents submit that the Samples collected by the PPCB and the Joint Committee, are in blatant disregard to the ‘*Water sampling and preservation techniques*’ issued by the CPCB wherein it has laid down a SOP/guidelines for collection of samples from industries.

(a) Storage & Analyses of Sample collected on 27.05.2018

The Samples collected for analysis are to be Tested within a prescribed period/ Timeline, and can to be stored for a maximum duration only, as indicated in the CPCB Guidelines. In this regard, it is submitted that the Sample collected on 27.05.2018 was admittedly (as per the Test Report) received by the laboratory on 28.05.2018 i.e the next day, whereas as per the

CPCB Guidelines, a Sample for Biochemical oxygen demand (BOD) is to be stored for a maximum period of 6 hours.

Thus, the BOD reading of the Sample collected on 27.05.2018, the answering Respondent respectfully submits is even otherwise to be discarded and cannot be proceeded with due to non-compliance of the CPCB Guidelines.

(b) Composite Samples not Collected (only Grab Samples)

The CPCB guidelines state that there are 3 types of sampling i.e. Grab, Composite and Integrated. The SOP defines the different methods of sampling and as to in what circumstance which type of sampling is ideal.

That the sampling done in the present case is admittedly 'grab sampling' wherein single samples were collected at a specific spot at a site at a specified time. Grab samples are to be collected only when the source is known to be constant in composition for an extended period of time. Examples are, ground water samples, well mixed surface waters, large lakes, rivers, estuaries, shorelines, wastewater streams that are

expected to be constant in composition over an extended period of time.

It is submitted that in the present case '*composite sampling*' or '*integrating sampling*' ought to have been done in as much as, the the water source is not constant and was dependent on plant operations from day to day and time to time. Hence the method of sampling is itself incorrect and hence cannot be relied upon.

XIII. OBJECTIONS AGAINST THE JOINT COMMITTEE REPORT

- A. It is submitted that there is no continuous violation caused by the Answering Respondent and therefore, no continuous pollution has been caused. That the Test Reports, if taken to as it is, indicate only a minor violation of the prescribed value which were just for a limited duration of time following which it was immediately corrected, and quality of the effluent was brought within the prescribed norms, and the same would have been clear if composite sampling would have been done. Thus, the report, in so far as the Joint final Inspection Report assessed compensation on continuous basis, is *ex-facie erroneous* and contrary to the record.

B. It is submitted that the Answering Respondent's unit was always operated in accordance with the terms and conditions of the consent granted by the Board under the Water Act, which was first granted to the answering Respondent on 29.08.2014 and was valid for a period of 5 years. The PPCB again renewed the CTO under the Water Act in June 2019 (i.e. after the Joint Committee Report dated 7.05.2019) for a period of one year and thereafter on 10.08.2020 for a further period of 5 years, which itself shows that the Answering Respondent's industry is a non-polluting unit.

It is relevant to mention that the CTO under the Water/ Air Acts are granted by the PPCB after physical site inspections, proper verification and scientific analysis of samples. Only after the PPCB is satisfied that the trade effluents are within permissible limits does it grant the CTO(s). Ergo, the Answering Respondent was in compliance with the terms and conditions as set out in the various consents to Operate / Authorization which were issued by the Punjab Pollution Control Board. The treated waste water discharge from the plant is well within the limits, and permitted under the Consents to operate /Authorizations issued by the PPCB to the Answering Respondent and is utilized for irrigation purposes.

- C.** The Online monitoring system installed by the Answering Respondent is directly connected to the server of the CPCB, and it clearly establishes continuous discharge of trade effluent being compliant with the prescribed parameters. Compliance to the standard value has also been established from the analysis reports that were submitted to the Board by the Answering Respondent from the accredited-laboratories run by the state. Therefore, there could not be computation on the basis of presumptive pollution for the period 27.05.2018 to 31.03.2019.
- D.** It is submitted that it is vital for any inspecting authority to examine if the variation in values of the effluent compared to the prescribed standard values was instantaneous or short-term variation or had persisted over a reasonable time. In the present case, the inspection (grab sampling) was carried out during the calibration of the online system under the directions of the Board, thereby causing variation in values, which were thereafter immediately corrected.
- E.** It is submitted that parallel proceeding were going on before the PPCB and this Hon'ble Tribunal, without apprising this Tribunal of the same. The Joint Committee Report dated 17.01.2019, did not refer to the earlier two visits dated 23.05.2018 and 15.11.2018 by

the PPCB, the recommendations provided by the PPCB and the various compliance reports/replies filed by the Respondent before the PPCB.

F. It is submitted that the Joint Committee calculated the Environmental Compensation as per the CPCB methodology wherein it considered the following periods as the total number violation days:

PERIOD	NUMBER OF DAYS
27.05.2018 – 14.11.2018	172
15.11.2018 – 16.01.2019	63
17.1.2019 – 31.03.2019	74
Total	309

I. TIME PERIOD - 27.05.2018 – 14.11.2018

- a. That the industry was visited on 27.05.2018 and a single Grab sample was collected from the ETP (authorized outlet) as well as the pipes leading from the outlet of the ETP for irrigation in the field of Sh. Satnam Singh, wherein it was found that the BOD value from sample collected from the ETP was 26mg/l i.e. within prescribed

limit of 30mg/l, but the BOD value from the sample collected from the pipes leading from outlet of ETP was 34 mg/l in the field of Sh Satnam Singh was, allegedly beyond the prescribed limit of 30mg/l.

LOCATION OF SAMPLING POINT	BOD (mg/l)	CO D (mg/l)	TSS (mg/l)
Outlet of ETP	26	205	38
From land of Satnam Singh Village Saila Kalan where effluent was found stagnated in the Low-lying area.	34	232	92
Prescribed Limit	30 (for Inland Surface Water) 100 (for Land for Irrigation)	350	50 (for Inland Surface Water) 200 (for Land for Irrigation)

Note: The Analysis Report dated 8.6.2018 from of Head Office Lab from Patiala states that the parameters are within the prescribed

standards for such type of industries, a fact duly accepted by the PPCB vide its Notice dated 01.02.2019.

- b.** At the outset, it is submitted that the Schedule VI of the EP Rules, 1986 lays down that the General Standard for discharge of Environmental Pollutants. In respect of BOD for inland surface water the prescribe criteria is 30 whereas for Land for irrigation the same is 100mg/l. Similarly, in respect of TSS for inland surface water the prescribe criteria is 100 whereas for Land for irrigation the same is 200mg/l. Thus it is submitted that the discharged Effluent sample collected from the field of Sh. Satnam Singh was well within the prescribed limits.
- c.** Without prejudice to the above submission that the parameters in the Test Report in furtherance of Grab Sample collected on 27.05.2018 is within the prescribed statutory norms, it is submitted that the marginally higher value of BOD as 34mg/l from the sample collected at Sh. Satnam Singh's field was perhaps due to contamination & unscientific and impermissible manner of storage of Sample from his field which is clear from the fact that the same treated effluent having BOD level of 26mg/l was leading to the pipes of irrigation network and being discharged in the field.

The Test Report furnished by the PPCB itself records that the Sample was collected on 27.05.2018 (*albeit in violation of Section 21*) and handed over to the Laboratory on 28.05.2018. As per the CPCB Guidelines, a sample for BOD cannot be stored beyond 6 hours. This aspect has not been considered by the Joint Committee, and on this ground alone the period of 27.05.2018 – 14.11.2018 (first instance) has to be excluded.

- d.** That the variation found in the sample collected at Sh. Satnam Singh's field were negligible primarily for the reason that the mouth of the valve remains exposed and is covered by mud and other pollutants that in the very nature of things would enhance the values violative of prescribed parameters. The mouth of the valve might be having mud accumulated dry effluent and even the rust factors that would gravely affect the BOD value.
- e.** The Joint Committee has not evaluated the quality of Water used in the fields of Sh. Satnam Singh in terms of irrigation water norms as prescribed under Schedule VI of the EP Rules, 1986, but evaluated it as an effluent which has been wrong. The sample collected from the fields of Shri Satnam Singh meets the norms of irrigation water quality as per the EP Rules, 1986.

- f. It is submitted that the Joint Committee Report wrongly states that TSS value from sample collected from the ETP was beyond the prescribed limit. It is submitted that the prescribed limit of TSS is 500 mg/l as per the EP Rules, 1984 rather than 50 mg/l, a fact accepted by the PPCB itself in all their Notices dated 6.09.2018 & 1.02.2019.

Thus, the period from 27.05.2018 to 14.11.2018 (172 days) ought not to have been included in the violation days to calculate the environmental compensation, and the Joint Committee has failed to consider that the parameters indicated in the Test Report are within the prescribed parameters.

II. TIME PERIOD - 15.11.2018 – 16.01.2019

- a. That the officials of PPCB and PBTI visited the plant of the Respondent on 15.11.2018 without serving any notice as mandated under Section 21(3)(a) and collected effluent samples *inter alia* from the outlet of ETP and from an agricultural field in Saila Kalan having low lying areas where effluent of the industry was accumulated.

The following results were found in the inspection dated 15.11.2018:

LOCATION	OF	BOD	CO	TSS
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SAMPLING POINT	(mg/l)	D (mg/l)	(mg/l)
Outlet of ETP	82	612	149
From land of Manjit Singh, Village Saila Kalan where effluent was found stagnated in the Low-lying area	243	1429	458
PRESCRIBED LIMIT	30 (for Inland Surface Water) 100 (for Land for Irrigation)	350	50 (for Inland Surface Water) 200 (for Land for Irrigation)

- b.** It is submitted that the Samples collected themselves are in violation of the CPCB guidelines for Sample Collection and Preservation. The said guidelines are in relation to the storage limit for COD Sampling restricting the refrigeration time for the analysis of the sample to be done is Six Hours. However, in the present case no precautionary steps were taken.

- c. It is submitted that the inspection report and collection of sample of effluent are contrary to and in violation of the statutory provisions of Section 21 and 22 of the Water, (Prevention and Control of Pollution) Act, 1974, as already elaborated in the preliminary submissions hereinabove.

It is submitted that the samples have not been collected as per the prescribed procedure, thus cannot form the basis of any punitive action against the Respondent in view of Section 21(3)(a) of the Water Act.

III. TIME PERIOD - 17.01.2019 – 31.03.2019

- a. That the Joint Committee constituted by this Hon'ble Tribunal conducted an Inspection dated 17.01.2019 in furtherance of the Order dated 19.12.2018 passed by this Hon'ble Tribunal.
- b. That the industry was visited on 1.04.2019 wherein the Joint Committee found that the industry was allegedly not complying with the provisions of the Water Act.
- c. It is submitted that the Respondent vide a letter dated 24.04.2019 apprised the PPCB of the directions complied with by the Respondent and the work that is still ongoing.

- d. The Company is regularly monitoring the performance of ETP and is having the samples taken from the ETP tested from NABL accredited Labs and recognized by the PPCB. The test results are summarized hereunder for ease of reference:-

DATE OF SAMPLE COLLECTION	POINT OF COLLECTION	PARAMETERS	
		BOD	COD
15.11.2018	Within premises	21	178
16.11.2018	Within premises	22	191
27.12.2018	ETP Outlet	8.6	173
27.12.2018	Irrigation Point Outlet (Nariala Village)	12	214
17.01.2019	Within premises	26	186
18.01.2019	Within premises	25	173
17.02.2019	Within premises	24	188
1.03.2019	Within premises	22.4	182
19.03.2019	Within premises	19	192
04.04.2019	Within premises	26	195
13.05.2019	Within premises	19	180
05.06.2019	ETP Outlet (Tertiary clarifier Outlet Effluent)	13.4	246

- e. It is submitted that the aforesaid test results indicate that the effluent discharged by the industry has always been within the prescribed limits. That on 17.01.2019, from when the violation

- period begins, the effluent discharged by the industry was within the prescribed limits i.e the BOD value being 26 mg/l and the COD value being 186 mg/l.
- f.** It is further submitted that on 4.04.2019 i.e. 3 days after the visit of the Joint Committee, the effluent discharged by the industry was within the prescribed limits i.e the BOD value being 26 mg/l and the COD value being 195 mg/l.
- g.** It is submitted that the PPCB vide letter dated 25.04.2019 has already taken action against the Respondent No. 3 in as much as the Respondent was directed to curtail 10% of its production capacity i.e. the Respondent shall produce not more than 337.5 TPD on an average (375-37.5 TPD) and the Respondent was further directed to Seal its Lignin Precipitation Plant.

Thus, the period from 17.01.2019 – 31.03.2019 (74 days) ought not to have been included in the violation days to calculate the environmental compensation.

- XIV.** The answering Respondent have got multiple Ground water studies of the irrigation command area and has further improved the ground water quality which is fit for discharge on land for irrigation and the quality of ground water in whole of the command area to be safe for

irrigation and requires no remediation. The Irrigation Management Plan (IMP) prepared by the answering Respondent has duly examined the Hydrogeology, ground water quality, treated effluent quality, Soil quality and Irrigation water quality. A survey of 36 farmers in the Area has indicated an increase in yield of crops subjected to effluent irrigation.

It is further submitted that the Respondent No. 3 has been continuously operating with the consent of the PPCB since 2014. The alleged violation to standards was always a matter of close scrutiny. All recommendations given from time to time by the PPCB were scrupulously followed and implemented by the industry under intimation to the Punjab Pollution Control Board.

XV. On the recommendations of the PPCB from time to time, the answering Respondent has invested a sum of more than Rs. 10 Crores during the period 2019-2023 and taken the following measures:

- upgraded its ETP Plant (along with a performance evaluation from CPPRI),
- installed a new volute press for decanting the sludge,
- prepared an Irrigation Management Plan (IMP)
- conducted Ground water study
- Installed a Chemical recovery Plant (CRP)

- Installed Turbo Spon Flash Calcinations
- Installed Power boilers
- Installed online emission monitoring system

These positive improvements and changes have been duly recorded by the PPCB its in Report dated 11.08.2020 & also by the CPCB vide its inspection Report dated 23.01.2023 & 17.05.2023 wherein no ground water contamination is found.

In light of the above preliminary submissions and objections to the Joint Committee Report, it is submitted that the two Samples Collected by the PPCB on 27.05.2018 & 15.11.2018 are collected in violation of Section 21(3)(a),(b),(c) & (d) of the Water Act, collectively as well as in insolation to each other, and thus cannot be treated as evidence in any legal proceedings, including the present OA in view of Section 21(2) of the Water Act which states that *“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”*.

The answering Respondent further submits that the Samples collected on all three occasions i.e. on 27.05.2018 & 15.11.2018 by the PPCB & on 17.01.2019 by the Joint Committee are not as per the CPC Guidelines on

'Water sampling and preservation techniques' which require a Composite sample testing in cases such as the present one when the source of water is not constant. The Sampling being in violation of the CPCB guidelines ought not to be taken as proof to impose Environmental compensation on the answering Respondent.

Thus, in view of the above legal and factual submissions made above, the answering Respondent herein respectfully and humbly prays that the present OA be disposed off without imposition of any Environmental Compensation.

Filed by:



[VANSHDEEP DALMIA]

Advocate for the Answering Respondent No. 3

Place: New Delhi
Filed on: 25.11.2024

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

ORIGINAL APPLICATION NO. 850 OF 2018

IN THE MATTER OF:

Residents of Saila Khurd Raniaala

...Applicant

Versus

State of Punjab & Ors.

...Respondents

AFFIDAVIT

I, Pavan Khaitan S/o Shri Jagesh Kumar Khaitan aged about 56 years R/o W1A, First Floor, Tower-A, Godrej Eternia, Plot No. 70, Industrial Area Phase-I, Chandigarh - 160002, do hereby solemnly affirm and declare as under:

1. That I am the Managing Director of the Respondent No. 3 firm in the above Original Application and I am well conversant with the facts and circumstances of the case and competent to depose the present Affidavit.

That I have read and understood the contents of the accompanying Reply which has been drafted on my instructions and I say that the facts stated therein are true to my knowledge.

That the averments of facts stated herein above are true to my knowledge, no part of it is false and nothing material has been concealed therefrom.

Certified that the contents of this documents has been read over & explained to the Deponent/Executant who seemed to directly to understand the same at the time of making & Signing the document

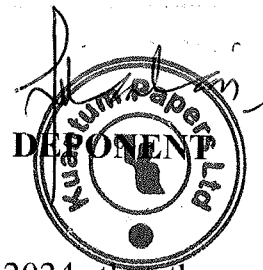
VERIFICATION:-

Verified at _____ on this _____ day November 2024, that the contents of the present affidavit are true and correct to my knowledge, no part of it is false and nothing material has been concealed therefrom.

Identified the Deponent who has signed in my presence.
92A Small Plot
Dhruv Ch...

ATTESTED AS IDENTIFIED

NOTARY, GOVT. OF INDIA
CHANDIGARH





ANNEXURE R-1

PUNJAB POLLUTION CONTROL BOARD

Website:- www.ppcb.gov.in

Industry ID:R12HSP41002

Date :29/08/2014

Application No :1520756

To

M/s Kuantum papers ltd
Saila khurd, tehsil garhshankar
Garhshankar
144529

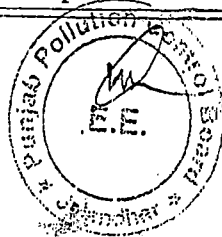
Tehsil: Garhshankar
District: Hoshiarpur

Subject:- Grant of consent to Operate an outlet u/s 25/26 of Water(Prevention & Control of Pollution)Act, 1974 for discharge of effluent.

With reference to your application for consent to operate an outlet for discharge of the effluent u/s 25/26 of Water(Prevention & Control of Pollution)Act, 1974, you are, hereby, authorized by the Board to discharge the effluent(s) arising out of your premises at Saila khurd, tehsil garhshankar subject to the following conditions:

A. Particulars of the Industry

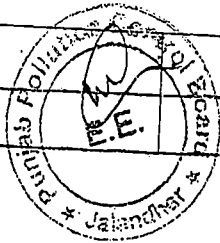
Name of the Applicant		Kuantum papers ltd		
Address of industrial premises		Saila khurd, tehsil garhshankar		
Capital investment of the industry		40192.0 lakhs		
Scale of the industry		Large		
Office District		Hoshiarpur		
Consent Fee Details		The industry has deposited Rs. 1750000/- under Water (Prevention & Control of Pollution) Act, 1974 & Rs. 1750000/- under Air (Prevention & Control of Pollution) Act, 1981 online through RTGS.		
Bank Name	Branch Name	Draft No./Money Receipt No.	Date	Rupees



Raw Materials, name with quantity per day	Purchased Wood Pulp, Waste Paper etc (AD) @155 Metric Tonnes/Day Caustic Lye (BD) @75 Metric Tonnes/Day Chlorine, Lime (for bleaching and CRP) @55 Metric Tonnes/Day Fillers and Other misc process chemicals @120 Metric Tonnes/Day Coal and/or Husk @650 Metric Tonnes/Day Sarkanda, Kahi, wheat straw, bagasse, bamboo, wood, vineer waster and other agro-residues (AD) @1000 Metric Tonnes/Day
Products with quantity per day	Writing and Printing Paper @450 Metric Tonnes/Day Co-generation Power @17.5 Metric Tonnes/Day
By-Products, if any, with quantity per day	Caustic Soda @50 Metric Tonnes/Day Soda Ash @35 Metric Tonnes/Day Lignin @25 Metric Tonnes/Day ETP Sludge Board @15 Metric Tonnes/Day Precipitated Calcium Carbonate Slurry. (BD) @69 Metric Tonnes/Day Calcium Oxide @80 Metric Tonnes/Day
Details of the machinery and processes	
Details of the Effluent Treatment Plant	Trade Effluent @17000.0 KLDDomestic Effluent @114.0 KLD
Mode of Disposal	Approx. 110 acres within premises for plantation, 2050 acres in nearby villages for irrigation, Septic tank followed by ETP
Standards to be achieved	

B. Particulars of Consent to Operate granted to the industry

No.R14HSPCTOW1520756	Date of issue :29/08/2014
	Date of expiry :31/03/2019



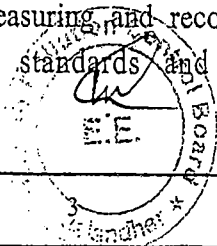
C. Main Conditions:

The industry shall comply with the decisions of hearing on 14-07-2014, afforded by the Chairman of the Board, completely within stipulated period and shall not discharge any effluent into any drain.

D. General Conditions:

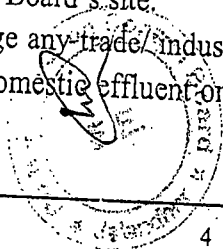
1. The effluent discharged through the authorized outlet shall conform to the standards prescribed by the Board as per Board's Notification issued from time to time for such discharges.
2. The industry shall regularly operate and maintain the treatment plant to ensure that the effluents conforms to the standards laid down by the Board for such type of industries.
3. i) The industry shall apply for renewal of consent at least two months before expiry of the consent.

(ii) The issuance of this consent does not convey any property right in either real or personal property, or any exclusive privileges, nor it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State or Local Laws or Regulations.
(iii) The consent does not authorise or approve the construction of any physical structures or facilities for undertaking of any work in any natural water course.
(iv) Nothing in this consent shall be deemed to preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities or penalties to which the applicant is or may be subjected under this or any other Act.
(v) During the period beginning from the date of issuance and the date of expiration of this consent, the applicant shall not discharge floating solids or visible foam.
- 4 Any amendments/revisions made by the Board in the tolerance limits for discharges shall be applicable to the industry from the date of such amendments/revisions.
- 5 The authorized outlet and mode of disposal shall not be changed without the prior written permission of the Board.
- 6 The industry shall not use any unauthorized out-let(s) for discharging effluents from its premises. All unauthorized outlets shall be connected to the authorized outlet within one month from the date of issue of this consent.
- 7 The industry shall not change or alter the manufacturing process(es) so as to change the quality and/or quantity of the effluents generated without the written permission of the Board.
- 8 Any upset conditions in the plant/plants of the factory, which is likely to result in increased effluent and/or result in violation of the standards laid down by the Board shall be reported to the Environmental Engineer, Punjab Pollution Control Board, Regional Office through fax under intimation to the Board failing which any stoppage and upset conditions that come to the notice of the Board/its officers, will be deemed to be intentional violation of the conditions of consent.
- 9 All under ground water retaining structures shall be lined with an impervious layer so as to avoid seepage and contamination of sub-soil/water.
- 10 The industry shall provide terminal manhole(s) at the end of each collection system and a manhole upstream of final outlet (s) out of the premises of the industry for measurement of flow and for taking samples.
- 11 The industry shall for the purpose of measuring and recording the quantity of water consumed and effluent discharged, affix meters of such standards and at such places as approved by the

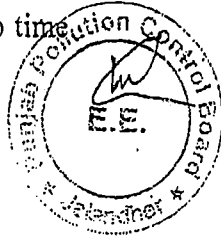


Environmental Engineer, Punjab Pollution Control Board, Regional Office.

- 12 The diversion or bye pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this consent is prohibited except.
- (i) Where unavoidable to prevent loss of life or some property damage or
- (ii) Where excessive storm drainage or run off would damage facilities necessary for compliance with terms and conditions of this consent. The applicant shall immediately notify the consent issuing authority in writing of each such diversion or bye-pass in accordance with the procedure specified above for
- 13 Solids, sludges, filter backwash or other pollutant removed from or resulting from treatment or control of waste waters shall be disposed off in such a manner as to prevent from any pollutants from such materials from entering natural water.
- 14 The industry shall ensure that no water pollution problem is created in the area due discharge of effluents from its industrial premises.
- 15 The industry shall make proper disposal of the effluent so as to ensure that no stagnation occurs inside and outside the industrial premises during rainy season and no demand period.
- 16 The industry shall submit a detailed plan showing there in the distribution system for conveying waste-waters for application on land for plantation/irrigation alongwith the crop pattern to be grown in field throughout the year.
- 17 The industry shall plant suitable varieties of trees all along the boundary of the industrial premises.
- 18 The industry shall make necessary and adequate arrangements to hold back the effluent in case of failure of re-circulation system/ effluent treatment plant.
- 19 The industry shall obtain the Authorization under the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 (as amended) framed under the Environmental (Protection) Act, 1986 as amended.
- 20 The industry shall obtain permission from the Central Ground Water Authority, Ministry of Water Resources, for abstraction of ground water.
21. The industry shall submit building plan prepared & duly authenticated by the Director of Factories/Chartered Architect/Chartered Engineer as may be authorized to do so under the provisions of section 3-A of Punjab Factory Rules, 1952.
22. The industry shall provide proper rain water harvesting system in its premises for the roof top rain water only alongwith separate & visible pipeline of light blue colour for this system and shall maintain the rain water harvesting system properly, to ensure that no ground water pollution occurred and no surface run off or any other rain water flowing in lawn/garden is allowed to enter in the rain water harvesting system.
23. The industry shall install electromagnetic flow meters at all sources of water supply and all the outlets maintained for disposal of effluent.
24. The industry shall provide proper distribution network in plantation/irrigation area developed to utilize treated trade effluent & domestic effluent and plantation area developed shall be as per Karnal Technology.
25. The industry shall install online monitoring equipments at final outlet of Effluent Treatment Plant & connect the same with Board's site.
26. The industry shall install CCTV cameras covering all components of effluent treatment plant and final outlet & connect the same with the Board's site.
27. The industry shall not discharge any trade/ industrial effluent into drain directly/ indirectly and shall utilize the entire treated trade & domestic effluent onto land for plantation/ irrigation only.



28. The industry shall contact central ground water authority regarding depth of 1st aquifer and change the depth of all the installed piezo-meters accordingly.
29. The industry shall provide proper lined arrangements for storage of lime sludge.
30. The industry shall dispose off the sludge stored in lagoon in environmentally sound manner in a time bound manner under intimation to the Board.
- 30 The industry shall obtain necessary statutory permissions/clearances from all other concerned departments.
- 31 The industry shall put up display board indicating Environment data at the main entrance gate.
32. The Board reserves the right to revoke the consent granted to the industry at any time in case the industry is found violating any of the conditions of the consent under Water (Prevention & Control of Pollution) Act, 1974 as amended time to time.



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ANNEXURE R-2

PUNJAB POLLUTION CONTROL BOARD

Website:- www.ppcb.gov.in

Industry ID:R12HSP41002

Date :29/08/2014

Application No :1542711

To

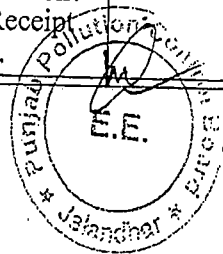
M/s Kuantum papers ltd
Saila khurd, tehsil garhshankar
Garhshankar
144529
Tehsil: Garhshankar
District: Hoshiarpur

Subject:- Grant of consent to operate u/s 21 of Air(Prevention & Control of Pollution)Act, 1981 for discharge of emissions arising out of premises.

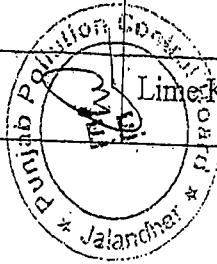
With reference to your application for consent to operate an industrial plant u/s 21 of Air(Prevention & Control of Pollution)Act, 1981, you are hereby, authorized by Punjab Pollution Control Board to operate an industrial plant for discharge the emissions arising out of your premises subject to the following conditions:

A. Particulars of the Industry

Name of the Applicant		Sh. Kuantum papers ltd			
Address of Industrial premises		Saila khurd, tehsil garhshankar			
Capital Investment of the Industry		40192.0 lakhs			
Scale of the Industry		Large			
Office District		Hoshiarpur			
Consent Fee Details		The industry has deposited Rs. 1750000/- under Water (Prevention & Control of Pollution) Act, 1974 & Rs. 1750000/- under Air (Prevention & Control of Pollution) Act, 1981 online through RTGS.			
Fee For	Bank Name	Branch Name	Draft No./Money Receipt No.	Date	Amount (In Rupees)



Raw Material, name with quantity/per day	Sarkanda, Kahi, Wheat Straw, Wood Chips, Bamboo, Wood, Vineer Waste and other agrosidues @1000 Metric Tonnes/Day Purchased Wood Pulp, Waste Paper etc (AD) @155 Metric Tonnes/Day Caustic Lye (White Liquor) (BD) @75 Metric Tonnes/Day Chlorine, Lime (For bleaching and CRP) @55 Metric Tonnes/Day Fillers and Other misc process chemicals @120 Metric Tonnes/Day Coal and/or Husk @650 Metric Tonnes/Day
Products with quantity/per day	Wrting and Printing Paper @450 Metric Tonnes/Day CO-generation Power @17.5 Metric Tonnes/Day
By-products, if any, with quantity/day	Caustic Soda (White Liquor) @50 Metric Tonnes/Day Soda Ash @35 Metric Tonnes/Day Lignin @25 Metric Tonnes/Day ETP Sludge Board @15 Metric Tonnes/Day Precipitated Calcium Carbonate Slurry (BD) @69 Metric Tonnes/Day Calcium Oxide @80 Metric Tonnes/Day
Details of the machinery and processes	
Quantity of fuel required in TPD and capacity of boilers/ Furnace/Thermo heater etc.	Black Liquor @230 Metric Tonnes/Day Coal and/or Husk @300 Metric Tonnes/Day Coal and/or Husk @350 Metric Tonnes/Day
Type of Air Pollution Control Devices installed	Electrostatic Precipitator, Electrostatic Precipitator, Electrostatic Precipitator,
Stack height provided with each boiler/thermo heater/Furnace etc.	Stack C (Recovery Boiler) @70(Ground Level)/35(Roof Level) Stack B (Power Boiler) @70(Ground Level)/30.5(Roof Level) Stack A (Common for 2 Boilers) @53(Ground Level)/29(Roof Level)
Sources of emissions and type of pollutants	Lime Kiln Air



Standards to be achieved	
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B. Particulars of Consent to Operate of the industry

No. R14HSPCTOA1542711	Date of issue :29/08/2014
	Date of expiry :31/03/2019

A. MAIN CONDITIONS

The industry shall make proper arrangements for disposing of its burnt ash in scientific manner.

B. GENERAL CONDITIONS

1. This consent is not valid for getting power load from the P.S.E.B or for getting loan from the financial institutions.

a) The industry shall discharge all gases through a stack of minimum height as specified in the following standards laid down by the Board.

(i) Stack height for boiler plants

Steam Generating Capacity	Stack heights
1. Less than 2 ton/hr.	9 meters or 2.5times the height of neighboring building which ever is more
2. More than 2 ton/hr. to 5 ton/hr.	12 meters
3. More than 5 ton/hr. to 10 ton/hr	15 meters
4. More than 10 ton/hr. to 15 ton/hr	18 meters
5. More than 15 ton/hr. to 20 ton/hr	21 meters
6. More than 20 ton/hr. to 25 ton/hr.	24 meters
7. More than 25 ton/hr. to 30 ton/hr.	27 meters
8. More than 30 ton/hr.	30 meters or using the formula

$$H = 14 Qg^{0.3}$$

or

$$H = 74 (QP)^{0.24}$$

Where Qg = Quantity of SO2 in Kg/hr.

QP = Quantity of particulate matter in Ton/day.

Note : Minimum Stack height in all cases shall be 9.0 mtr. or as calculated from relevant formula whichever is more.

(ii) For industrial furnaces and kilns, the criteria for selection of stack height would be based on fuel used for the corresponding steam generation.

(iii) Stack height for diesel generating sets:

Capacity of diesel generating set	Height of the Stack	
0-50 KVA	Height of the building	+ 1.5 mt.
50-100 KVA	-do-	+ 2.0 mt.
100-150 KVA	-do-	+ 2.5 mt.



150-200 KVA	-do-	+ 3.0 mt.
200-200 KVA	-do-	+ 3.5 mt.
250-300 KVA	-do-	+ 3.5 mt.

For higher KVA rating stack height H (in meter) shall be worked out according to the formula:

$$H = h + 0.2 (KVA)^{0.5}$$

where h = height of the building in meters where the generator set is installed.

3. The industry shall not consume any fuel except authorized/consented without the prior written permission of the Board.

4. The Govt. of Punjab, Department of Science, Technology & Environment vide its notification no.4/46/92-3ST/2839 dt. 29/12/1993 has put prohibition on the use of rice husk as fuel after 1.4.1995 except the following:

"In the form of briquettes and use of rice husk in fluidized bed combustion. So the industry shall make the necessary arrangement to comply with the above notification."

5. a) The industry shall ensure that at any time the emission do not exceed the emissions standards laid down by the Board from time to time and the latest standards prescribed by the Board for use of pet coke as fuel.

b) The industry shall ensure that the emissions from each stack shall conform to the following emission standards laid down by the Board.

Steam Generating Capacity	Required particulate matter	
	A. Area upto 5 Km from the periphery of I and class-II town.	B. Other than "A" class
Less than 2 ton/hr.	800 mg/NM ³	1200 mg/NM ³
2 ton to 10 ton/hr.	500 mg/NM ³	1000 mg/NM ³
Above 10 ton to 15 ton/hr	350 mg/NM ³	500 mg/NM ³
Above 15 ton/hr	150 mg/NM ³	150 mg/NM ³

All emissions normalized to 12% carbon dioxide.

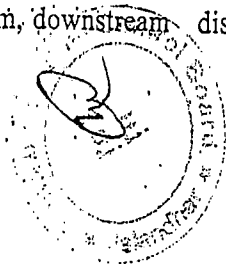
6. The industry shall provide port-holes, platforms and/or other necessary facilities as may be required for collecting the samples of emissions from any chimney, flue or duct or any other outlets.

Specifications of the port-holes shall be as under:-

i) The sampling ports shall be provided at atleast 8 times chimney diameter down stream and 2 times up stream from the flow disturbance. For a rectangular cross section the equivalent diameter (De) shall be calculated from the following equation to determine upstream, downstream distance:-

$$De = \frac{2LW}{L+W}$$

L+W



Where L=Length in mts. W=Width in mts.

ii) The sampling port shall be 7 to 10 cm in diameter.

7. The industry shall make necessary arrangements for the monitoring of stack emissions and shall monitor its emissions:-

i) Once in Year for Small Scale Industries.

ii) Twice in a Year for Large/Medium Scale Industries.

8. The industry shall comply with any other conditions laid down or directions issued in due course by the Board under the provisions of the Air (Prevention & Control of Pollution) Act, 1981.

9. Nothing in this consent shall be deemed to neither preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities or penalties to which the applicant is or may be subjected to under this or any other Act.

10. The industry shall plant minimum of three suitable varieties of trees all along the boundary of the industrial premises.

11. Any amendments/revisions made by the Board in the emission/stack height standards shall be applicable to the industry from the date of such amendments/revisions.

12. The industry shall dispose off its solid wastes generated in a proper manner and to the satisfaction of the Board to avoid public nuisance and air pollution problem.

13. The existing control equipment shall be altered or replaced in accordance with the direction of the Board, and no control equipment or chimney shall be altered or as the case may be erected or re-erected except with the previous approval of the Board.

14. The industry shall not discharge any fugitive emissions. All gases shall be emitted through a stack of suitable height, as per the norms fixed by the Board from time to time.

15. The industry shall keep the height of exhaust pipes with ventilation equipments etc. at least 3 meters above the roof level.

16. The industry will install the separate energy meter for running pollution control devices and shall maintain record with respect to operation of air pollution control device so as to satisfy the Board regarding the regular operation of air pollution control device and monthly reading may be sent to the Board by the fifth of the following month.

17. The industry shall provide adequate arrangements for fighting the accidental leakages/discharge of any air pollutant/gas/liquids from the vessel, mechanical equipment's etc. which are likely to cause environmental pollution.

18. The air pollution control equipments shall be kept at all time in good running condition and ;

(i) All failures of control equipments.

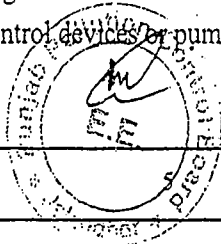
(ii) The emissions of any air pollutant into the atmosphere in excess of the standards lay down by the Board occurring or being apprehended to occur due to accident or other unforeseen act or event.

"Shall be intimated through fax to the Environmental Engineer, Regional Office as well as to the Director of Industries, Punjab Chandigarh as required under rule 10 of the Punjab State Board for the Prevention and Control of Air Pollution Rules, 1983".

19. The industry shall ensure that no air pollution problem or public nuisance is created in the area due to discharge of emissions from the industry.

20. The industry shall maintain the following record to the satisfaction of the Board:

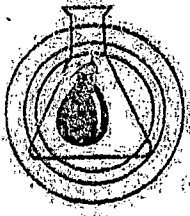
a) Log books for running of air pollution control devices or pumps/motors used for running of the same.



- b) Register showing the results of various tests conducted by the industry for monitoring of stack emissions and ambient air.
- c) Register showing the stock of absorbents and other chemicals to be used for scrubbers.
21. The adequacy and efficiency of the air pollution control devices will be the entire responsibility of the industry.
22. The pollution control devices shall be interlocked with the manufacturing process of the industry.
23. The industry shall obtain the Authorization under the Hazardous Waste (Management Handling and Transboundary Movement) Rules, 2008 as amended from time to time.
24. The industry shall submit building plan prepared & duly authenticated by the Director of Factories/Chartered Architect/Chartered Engineer as may be authorized to do so under the provisions of section 3-A of Punjab Factory Rules, 1952.
25. The industry shall install online monitoring equipment with stack after Air Pollution Control Device with boiler and shall connect with the Board's site.
26. The industry shall install CCTV cameras covering all the stacks and connect the same with Board's site.
27. The industry shall provide certified canopy on the DG set to comply with the provisions of EPA Rules, regarding noise pollution.
28. The industry shall make adequate arrangement for disposal of fuel ash, in environmentally sound manner.
29. The industry shall obtain necessary statutory permissions/clearances from all other concerned departments.
30. The industry shall put up display board indicating Environment data at the main entrance gate.
31. The Board reserves the right to revoke the consent granted to the industry at any time in case the industry is found violating any of the conditions of the consent under Air (Prevention & Control of Pollution) Act, 1981 as amended time to time.



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E.T.L.

ENVIRON TECH LABORATORIES

NABL ACCREDITED & PPCB RECOGNISED ANNEXURE R-3

Plot No. 62, 1st Floor, JEPL Industrial Area, Airport Road, Sector 82, S.A.S. Nagar (Mohali) Pb.
Tele: 9463000081, Mob. 94172-10081, Email: environtechlab72@yahoo.com

Ref. No. ETL/DSP/2018/2111

TEST REPORT

Dated Page 1 of 1
21/11/2018

TO
M/S KUANTUM PAPERS LTD,
GARHSHANKAR, DISTT HOSHIARPUR,
PUNJAB.

Report No.	ETL/25/2018-19/G/181609-Y	Report Date	21.11.2018
Your Ref. No.	Nil	Type of sample	ETP (OUT-LET) Water
Sample Code Given by Customer	Nil	Quantity	2 LITER (Grab)
Sampling Location	Within Premises	Date of Sampling	15.11.2018
Sample Collected By	Lab Person	Date of sample receipt	15.11.2018
Sampling procedure	As per SOP	Sample I.D.	ETL/05/2018-19/G/1609-Y
		Date of test	15.11.2018-21.11.2018

S. NO.	PARAMETERS	TEST RESULTS	STANDARDS EPA (RULES) 1986- SCHEDULE-6			TEST METHODS
			Inland surface Water	Public Sewer	Land for Irrigation	
1	pH	7.75	5.5-9.0	5.5-9.0	5.5-9.0	IS:3025 (Part-11)2002, Reaff. 2017. APHA 23rd Edition:2017-4500 H-B
2	Total Suspended Solids, mg/L	21	100	600	200	IS:3025 (Part-17)2012, Reaff. 2017. APHA 23rd Edition:2017-2540 D
3	Total Dissolved Solid, mg/L	1205	-	-	-	IS:3025 (Part-16)2006, Reaff. 2017. APHA 23rd Edition:2017-2540 C
4	Bio-chemical Oxygen Demand at 27°C 3 days, mg/L	21	30	350	100	IS:3025 (Part-44)2009, Reaff. 2014. APHA 23rd Edition:2017-5210 B
5	Chemical Oxygen Demand, mg/L	178	250	No guideline	No guideline	IS:3025 (Part-58)2006, Reaff. -2017. APHA 23rd Edition:2017-5220 B
6	Sodium Absorption Ratio	6.0	...	...	...	Lab-SOP-By Calculation

All tested parameters are within permissible limit, So discharge water is fit for irrigation.

Note:

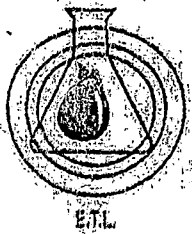
1. The test report refers only to tested sample and applicable parameters.
2. This report can neither be used as evidence in the court of law nor can it be used in part or full in any media without prior permission.
3. The sample will be destroyed after thirty days from the date of issue of test report unless otherwise specified.

(Checked By)
N. Jeele



Ramesh Kumar
(Authorized Signatory)
Technical Manager
Environ Tech Laboratories

Testing of Water, Waste Water, Soil, Food, Monitoring of Ambient Air, Ambient Noise & Stack Emission



ENVIRON TECH LABORATORIES

NABL ACCREDITED & PPCB RECOGNISED

Plot No. 62, 1st Floor, JLPL, Industrial Area, Airport Road, Sector 32, S.A.S. Nagar (Mohali) Pb.
Tele: 9463000081, Mob: 94172-10081, Email: envrontechlab72@yahoo.com

Ref. No. ETL/DSP/2018/2111

Dated: 21/11/2018
Page 1 of 1

TEST REPORT

TO
M/S KUANTUM PAPERS LTD,
GARHSHANKAR, DISTT HOSHIARPUR,
PUNJAB

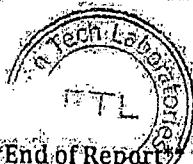
Report No.	ETL/ZS/2018-19/G/181609-V	Report Date	21.11.2018
Your Ref. No.	Nil	Type of sample	ETP (OUT-LET) Water
Sample Code Given by Customer	Nil	Quantity	2 LITER (Grab)
Sampling Location	Within Premises	Date of Sampling	16.11.2018
Sample Collected By	Lab Person	Date of sample receipt	16.11.2018
Sampling procedure	As per SOP	Sample ID	ETL/05/2018-19/G/1609-V
		Date of test	16.11.2018-21.11.2018

S. NO.	PARAMETERS	TEST RESULTS	STANDARDS EPA (RULES) 1986- SCHEDULE-6			TEST METHODS
			Inland surface Water	Public Sewer	Land for Irrigation	
1	pH	7.95	5.5 - 9.0	5.5 - 9.0	5.5 - 9.0	IS:3025 (Part-11) 2002, Reaff. 2017, APHA 23 rd Edition: 2017-4500 H* B
2	Total Suspended Solids, mg/L	27	100	600	200	IS:3025 (Part-17) 2012, Reaff. 2017, APHA 23 rd Edition: 2017-2540 D
3	Total Dissolved Solid, mg/L	1310	-	-	-	IS:3025 (Part-16) 2006, Reaff. 2017, APHA 23 rd Edition: 2017 -2540 C
4	Bio-chemical Oxygen Demand at 27°C 3 days, mg/L	22	30	350	100	IS:3025 (Part-44) 2009, Reaff. 2014, APHA 23 rd Edition: 2017-5210 B
5	Chemical Oxygen Demand, mg/L	191	250	No guideline	No guideline	IS:3025 (Part-58) 2006, Reaff. -2017, APHA 23 rd Edition: 2017-5220 B
6	Sodium Absorption Ratio	6.0	---	---	---	Lab SOP-By Calculation

All tested parameters are within permissible limit, So discharge water is fit for irrigation.
Note:

1. The test report refers only to tested sample and applicable parameters.
2. This report can neither be used as evidence in the court of law nor can it be used in part or full in any media without prior permission.
3. The sample will be destroyed after thirty days from the date of issue of test report unless otherwise specified.

(Checked By)
N. J. Singh

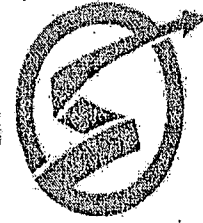


End of Report

(Authorized Signatory)
Rameshwar Kumar

RAMESHWAR KUMAR
Technical Manager

Testing of Water, Waste Water, Soil, Food, Monitoring of Ambient Air, Ambient Noise & Stack Emission



Sophisticated Analytical Instruments Laboratories Society (Registered as Society with Registrar of Firms & Societies, Punjab, Chandigarh)
Thapar Technology Campus, Bhadson Road, Patiala-147 004 (India)


TEST REPORT

Test Report No.:	NN(D)/18-19/338	Date:	07.01.2019
Service No.	NN(D)/18-19/338 (01-02)	Customer's Ref.	Sample collected by SAI Labs on date 27.12.2018
Customer's name and address:			
M/s Kuantum Paper Ltd village - Salfa Khurd, District Hoshiarpur Kind attn.: Mr. Vijay Moten			
Sample Description	Effluent		
Condition of the sample received	O.K.		
Customer's sample Identification No. (if any)	01- ETP Outlet 02- Irrigation Point Outlet (in Irrigation village Nariala)		
Quantity/number of samples	Two		
Sampling Procedure (if any)	--		
Test parameters	pH, TSS, COD, BOD, AOX		
Standard/Specification/Method followed	APHA 23rd Edn		
Deviations (if any)	--		
Documents constituting this report (if any)	--		
Date of Receipt of Job	Date of Completion of Job	Total Number of Pages	
27.12.2012	07.1.2019	1	

TEST RESULTS

S. No.	Parameters	Test Method	Unit	Results	
				01	02
1	pH	APHA 23rd. Edn.4500-H ⁺ B	--	7.2	7.1
2	Total Suspended Solid	APHA 23rd. Edn.2540-D	mg/l	34	32
3	Chemical Oxygen Demand (COD)	APHA 23rd Edn. 5220B	mg/l	173	214
4	Biochemical Oxygen Demand for 3 days at 27°C	IS: 3025 (Part 44)-1993	mg/l	8.6	12.0
5	AOX	ISO: 9562 1989 (E)	mg/l	4.22	4.31

.....end of the report.....


S. Chandra
Head, SAI Labs
(Authorized Signatory)

- Note: 1. The results listed refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
2. Samples will be destroyed after one month from the date of issue of the test report unless otherwise specified
3. This report is not to be reproduced wholly or in part and cannot be used as an evidence in the products is neither inferred nor implied, court of law and should not be used in any advertising media without special permission in writing.
4. In case any reconfirmation of contents of the test report is required, please contact the authorized signatory of the test report within 15 days of the issue of test report

Sophisticated Analytical Instruments Laboratories Society (Registered as Society with Registrar of Firms & Societies, Punjab, Chandigarh)
Thapar Technology Campus, Bhadson Road, Patiala-147004 (India)

TEST REPORT

Test Report No.	NN(D) 18-19/338	Date:	07.01.2019
Service No.	NN(D) 18-19/338(01-02)	Customers Ref.	Sample Collected by SAI Labs on dtd 27.12.2018
Customers name and address:			
M/s Kuantum paper Ltd Village- Saila Khurd, District Hoshiarpur Kind Attn: Mr.Vijay Moten			
Sample Description		Effluent	
Condition of the sample received		O.K	
Customer's sample identification No(If any)		01-ETP Outlet 02-Irrigation Point Outlet(in irrigation Village Nariala)	
Quantity /number of Samples		Two	
Sampling proced(if any)		....
Test Parameters		pH, TSS,COD, BOD,AOX	
Standard/specification/Method followed		APHA 23 rd : Edn	
Deviations (if any)		.....
Documents constituting this Report(if any)		.....
Date of receipt of job	Date of completion of job	Total Number of pages	
27.12.2012	07.01.2019	1	

TEST RESULTS

S.No	Parameters	Test Method	Unit	Results	
				01	02
1.	pH	APHA 23 rd Edn.4500-H'B	.....	7.2	7.1
2.	Total Suspended Solid	APHA 23 rd Edn.2540-D	mg/l	34	32
3.	Chemical Oxygen Demand (COD)	APHA 23 rd Edn. 5220B	mg/l	173	214
4.	Biochemical Oxygen Demand for 3 days at 27 0C	IS:3025 (Part 44)-1993	mg/l	8.6	12.0
5.	AOX	ISO:9562 1089(E)	mg/l	4.22	4.31

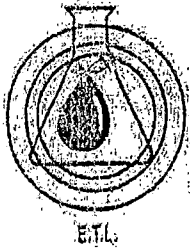
.....End of the Report....

S. Chandra
Head, SAI Labs
(Authorized Signatory)

Note:

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SAI/FM/CSC-11



ENVIRON TECH LABORATORIES

NABL ACCREDITED & PPCB RECOGNISED

Plot No. 62, 1st Floor, JLPL Industrial Area, Airport Road, Sector 82, S.A.S. Nagar (Mohali) Pb.
Tele: 9463000081, Mob: 94172-10081, Email: envrontechlab72@yahoo.com

Ref. No. ETL/DSP/2019/2501

Date: 25/01/19
Page 1 of 1

TEST REPORT

TO
M/S KUANTUM PAPERS LTD,
GARHSHANKAR, DISTT HOSHIARPUR,
PUNJAB

Report No.	ETL/25/2018-19/G/182028-G	Report Date	25/01/2019
Your Ref. No.	Nil	Type of sample	ETP (OUT-LET) Water
Sample Code Given by Customer	Nil	Quantity	2 LITER (Grab)
Sampling Location	Within Premises	Date of Sampling	17/01/2019
Sample Collected By	Lab Person	Date of sample receipt	17/01/2019
Sampling procedure	As per SOP	Sample ID	ETL/05/2018-19/G/2028-G
		Date of test	17/01/2019-25/01/2019

S.NO.	PARAMETERS	TEST RESULTS	STANDARDS EPA(RULES) 1986- SCHEDULE-6			TEST METHODS
			Inland surface Water	Public Sewer	Land for Irrigation	
1	pH	7.95	5.5 - 9.0	5.5 - 9.0	5.5 - 9.0	IS:3025 (Part-11) 2002, Reaff. 2017. APHA 23 rd Edition: 2017-4500 H. B
2	Total Suspended Solids, mg/L	22	100	600	200	IS:3025 (Part-17) 2012, Reaff. 2017. APHA 23 rd Edition: 2017-2540 D
3	Total Dissolved Solid, mg/L	1295	-	-	-	IS:3025 (Part-16) 2006, Reaff. 2017. APHA 23 rd Edition: 2017-2540 C
4	Bio-chemical Oxygen Demand at 27°C 3 days, mg/L	26	30	350	100	IS:3025 (Part-44) 2009, Reaff. 2014. APHA 23 rd Edition: 2017-5210 B
5	Chemical Oxygen Demand, mg/L	186	250	No guideline	No guideline	IS:3025 (Part-58) 2006, Reaff. 2017. APHA 23 rd Edition: 2017-5220 B
6	Sodium Absorption Ratio	6.1	-	-	-	Lab SOP-By Calculation

All tested parameters are within permissible limit, So discharge water is fit for irrigation.

Note:

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- This report can neither be used as evidence in the court of law nor can it be used in part or full in any media without prior permission.
- The sample will be destroyed after thirty days from the date of issue of test report unless otherwise specified.

(Signature)
(Checked By)

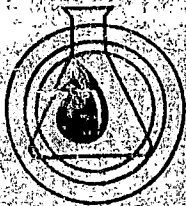


(Signature)
(Authorized Signatory)

RAMESHWAR KUMAR
Technical Manager

End of Report

Testing of Water, Waste Water, Soil, Food, Monitoring of Ambient Air, Ambient Noise & Stack Emission



ETL

197
00GSTIN: 03BPEPS9693P1ZV
PAN No: BPEPS9693P**ENVIRON TECH LABORATORIES**
NABL ACCREDITED & PPCB RECOGNISEDPlot No. 62, 1st Floor, JLPL Industrial Area, Airport Road, Sector 82, S.A.S. Nagar (Mohali) Pb.
Tele: 9463000081, Mob. 94172-10081, Email: envirotechlab72@yahoo.com

Ref No: ETL/OSP/2019/260


Dated: 26.01.2019
Page 1 of 1**TEST REPORT**TO
M/S KUANTUM PAPERS LTD,
GARHSHANKAR, DISTT HOSHIARPUR,
PUNJAB

Report No.	ETL/25/2018-19/G/182048-I	Report Date	26.01.2019
Your Ref No.	Nil	Type of sample	ETP (OUT-LET) Water
Sample Code Given by Customer	Nil	Quantity	2 LITER (Grab)
Sampling Location	Within Premises	Date of Sampling	18.01.2019
Sample Collected By	Lab Person	Date of sample receipt	18.01.2019
Sampling procedure	As per SOP	Sample I.D.	ETL/05/2018-19/G/2048-I
		Date of test	18.01.2019-26.01.2019

S. NO.	PARAMETERS	TEST RESULTS	STANDARDS EPA (RULES) 1986 SCHEDULE-6			TEST METHODS
			Inland surface Water	Public Sewer	Land for Irrigation	
1	pH	8.15	5.5-9.0	5.5-9.0	5.5-9.0	IS:3025 (Part-11)2002, Reaff. 2017 APHA 23 rd Edition:2017-4500 H+B
2	Total Suspended Solids, mg/L	21	100	600	200	IS:3025 (Part-17)2012, Reaff. 2017 APHA 23 rd Edition:2017-2540 D
3	Total Dissolved Solid, mg/L	1237				IS:3025 (Part-16)2006, Reaff. 2017 APHA 23 rd Edition:2017-2540 C
4	Bio-chemical Oxygen Demand at 27°C 3 days, mg/L	25	30	350	100	IS:3025 (Part-44)-2009, Reaff. 2014 APHA 23 rd Edition:2017-5210 B
5	Chemical Oxygen Demand, mg/L	173	250	No guideline	No guideline	IS:3025 (Part-58)2006, Reaff. 2017 APHA 23 rd Edition:2017-5220 B
6	Sodium Absorption Ratio	6.4				Lab SOP By Calculation

All tested parameters are within permissible limit. So discharge water is fit for irrigation.
Note:

1. The test report refers only to tested sample and applicable parameters.
2. This report can neither be used as evidence in the court of law nor can it be used in part or full in any media without prior permission.
3. The sample will be destroyed after thirty days from the date of issue of test report unless otherwise specified.


(Checked By)


(Authorized Signatory)
RAMESHWAR KUMAR
Technical Manager
Environ Tech Laboratories

Testing of Water, Waste Water, Soil, Food, Monitoring of Ambient Air, Ambient Noise & Stack Emission



ENVIRON TECH LABORATORIES

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Ref. No. ETL/DSP/2019/1802

TEST REPORT

Page 1 of 1
Dated: 18/02/2019

TO
M/S KUANTUM PAPERS LTD,
GARISHANKAR, DISTT. HOSHIARPUR,
PUNJAB

Report No.	ETL/25/2018-19/G/181609-Z	Report Date	18.02.2019
Your Ref. No.	Nil	Type of sample	ETP (OUT LET) Water
Sample Code Given by Customer	Nil	Quantity	2 LITER (Grab)
Sampling Location	Within Premises	Date of Sampling	13.02.2019
Sample Collected By	Lab Person	Date of sample receipt	13.02.2019
Sampling procedure	As per SOP	Sample I.D.	ETL/05/2018-19/G/1609-Z
		Date of test	13.02.2019-18.02.2019

S: NO.	PARAMETERS	TEST RESULTS	STANDARDS EPA (RULES) 1986- SCHEDULE-6			TEST METHODS
			Inland surface Water	Public Sewer	Land for Irrigation	
1	pH	7.46	5.5-9.0	5.5-9.0	5.5-9.0	IS:3025 (Part-11) 2002, Reaff. 2017, APHA 23rd Edition: 2017-4500H-B
2	Total Suspended Solids, mg/l	24	100	600	200	IS:3025 (Part-17) 2012, Reaff. 2017, APHA 23rd Edition: 2017-2540-D
3	Total Dissolved Solid, mg/l	1276				IS:3025 (Part-16) 2006, Reaff. 2017, APHA 23rd Edition: 2017-2540-C
4	Bio-chemical Oxygen Demand at 27°C 3 days, mg/L	24	30	350	100	IS:3025 (Part-44) 2009, Reaff. 2014, APHA 23rd Edition: 2017-5210-B
5	Chemical Oxygen Demand, mg/L	188	250	No guideline	No guideline	IS:3025 (Part-58) 2006, Reaff. 2017, APHA 23rd Edition: 2017-5220-B
6	Sodium Absorption Ratio	6.0				Lab SOP By Calculation

All tested parameters are within permissible limit. So discharge water is fit for irrigation.

Notes:

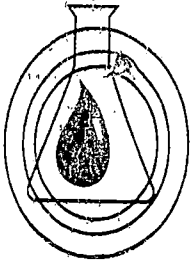
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Nishu
(Checked By)



Rameshwar Kumar
(Authorized Signatory)
RAMESHWAR KUMAR
Technical Manager
Environ Tech Laboratories

Testing of Water, Waste Water, Soil, Food, Monitoring of Ambient Air, Ambient Noise & Stack Emission



E.T.L.

ENVIRON TECH LABORATORIES

NABL ACCREDITED & PPCB RECOGNISED

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Ref. No. ETL/DSP/181894

Dated : 14/03/2019

Page 1 of 1

TEST REPORT

To.
M/S Kuantum Papers Ltd, Salla Khurd,
Distt Hoshiarpur Punjab

Report No.	ETL/25/2018-19/G/182342	Report Date	14.03.2019
Your Ref. No.	Nil	Type of sample	ETP (OUT-LET) Water
Sample Code Given by Customer	Nil	Quantity	2 LITER
Sampling Location	Within Premises	Date of Sampling	01.03.2019
Sample Collected By	Lab Person	Date of sample receipt	01.03.2019
Sampling procedure	As per SOP	Sample I.D.	ETL/05/2018-19/G/2342
		Date of test	01.03.2019-14.03.2019

S. NO.	PARAMETERS	TEST RESULTS	STANDARDS EPA(RULES) 1986-SCHEDULE-6			TEST METHODS
			Inland surface Water	Public Sewer	Land for Irrigation	
1	pH	7.86	5.5 - 9.0	5.5 - 9.0	5.5 - 9.0	IS: 3025 (Part - 11)2002/APHA 22 nd Edition:2012-4500B
2	Colour ,Hazen Unit, Max	27	--	--	--	IS: 3025 (Part - 4) APHA 22 nd Edition:2012-2120B
3	Total Suspended Solids, mg/L	24	100	600	200	IS: 3025 (Part - 17)2002/APHA 22 nd Edition:2012-2540D
4	Total Dissolved Solid, mg/L	1122	--	--	--	IS: 3025 (Part - 16)2006/APHA 22 nd Edition:2012-2540C
5	Bio-chemical Oxygen Demand at 27°C 3 days, mg/L	22.4	30	350	100	IS: 3025 (Part - 44)2003/APHA 22 nd Edition:2012-5210B
6	Chemical Oxygen Demand, mg/L	182	250	No guideline	No guideline	IS: 3025 (Part - 58)2006/APHA 22 nd Edition:2012-5520D
7	Sodium Absorption Ratio	6.97	---	---	---	Lab SOP-By Calculation

Note:

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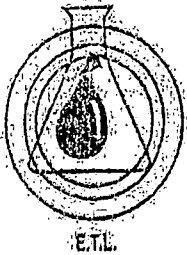
Nitika
(Checked By)



End of Report

Rameshwar Kumar
(Authorized Signatory)

RAMESHWAR KUMAR
Technical Manager
Environ Tech Laboratories



ENVIRON TECH LABORATORIES

NABL ACCREDITED & PPCB RECOGNISED

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Ref. No. ETL/DSP/2019/2503
To

TEST REPORT

Page 1 of 1
Dated 25/03/2019

M/S KUANTUM PAPERS LTD,
GARHSANKAR, DISTT HOSHIARPUR,
PUNJAB

Report No.	ETL/25/2018-19/G/181609-N	Report Date	25.03.2019
Your Ref. No.	Nil	Type of sample	ETP (OUT-LET) Water
Sample Code Given by Customer	Nil	Quantity	2 LITER (Grab)
Sampling Location	Within Premises	Date of Sampling	19.03.2019
Sample Collected By	Lab Person	Date of sample receipt	19.03.2019
Sampling procedure	As per SOP	Sample I.D.	ETL/05/2018-19/G/1609-N
		Date of test	19.03.2019-25.03.2019

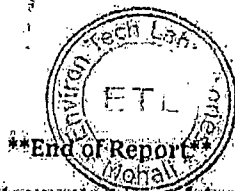
S.NO.	PARAMETERS	TEST RESULTS	STANDARDS EPA (RULES) 1986- SCHEDULE-6			TEST METHODS
			Inland surface Water	Public Sewer	Land for Irrigation	
1.	pH	7.75	5.5-9.0	5.5-9.0	5.5-9.0	IS:3025 (Part-11) 2002, Reaff. 2017. APHA 23 rd Edition: 2017-4500 H-B
2	Total Suspended Solids, mg/L	21	100	600	200	IS:3025 (Part-17) 2012, Reaff. 2017. APHA 23 rd Edition: 2017-2540-D
3	Total Dissolved Solid, mg/L	1205				IS:3025 (Part-16) 2006, Reaff. 2017. APHA 23 rd Edition: 2017-2540-C
4	Bio-chemical Oxygen Demand at 27°C 3 days, mg/L	19	30	350	100	IS:3025 (Part-44) 2009, Reaff. 2014. APHA 23 rd Edition: 2017-5210-B
5	Chemical Oxygen Demand, mg/L	192	250	No guideline	No guideline	IS:3025 (Part-58) 2006, Reaff. 2017. APHA 23 rd Edition: 2017-5220-B
6	Sodium Absorption Ratio	6.0	...	...	...	Lab SOP: By Calculation

All tested parameters are within permissible limits. So discharge water is fit for irrigation.

Note:

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2. This report can neither be used as evidence in the court of law nor can it be used in part or full in any media without prior permission.
3. The sample will be destroyed after thirty days from the date of issue of test report unless otherwise specified.

Nidhishu
(Checked By)

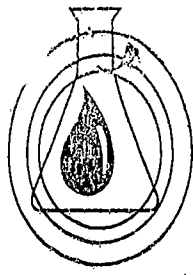


End of Report

Rameshwar Kumar
(Authorized Signatory)

RAMESHWAR KUMAR
Technical Manager

Testing of Water, Waste Water, Soil, Food, Monitoring of Ambient Air, Ambient Noise & Stack Emission



E.T.L.

ENVIRON TECH LABORATORIES

(NABL ACCREDITED LAB.)

Certificate No. T-1947

Plot No. 62, 1st Floor, JLPL Industrial Area, Sector 82, Airport Road, S.A.S. Nagar (Mohali) Pb.

Tele : 9463000081, Mob, 94172-10081, Email : environtechlab72@yahoo.com

Ref. No. : ETL/ASP/1936

Dated : 07/04/2019

Page 1 of 1

TEST REPORT

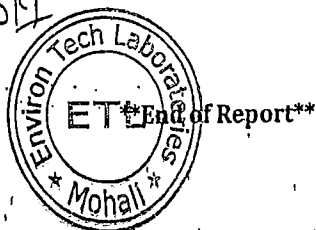
To
M/S Kuantum Papers Ltd, Saila Khurd,
Distt Hoshiarpur Punjab

Report No.	ETL/25/2019-20/G/1926	Report Date	07.04.2019
Your Ref. No.	Nil	Type of sample	ETP (OUT-LET) Water
Sample Code Given by Customer	Nil	Quantity	2 LITER
		Date of Sampling	04.04.2019
Sampling Location	Within Premises	Date of sample receipt	04.04.2019
Sample Collected By	Lab Person	Sample I.D.	ETL/05/2018-19/G/26
Sampling procedure	As per SOP	Date of test	04.04.2019-07.04.2019

S. NO.	PARAMETERS	TEST RESULTS	STANDARDS EPA(RULES) 1986-SCHEDULE-6			TEST METHODS
			Inland surface Water	Public Sewer	Land for Irrigation	
1	pH	7.82	5.5 - 9.0	5.5 - 9.0	5.5 - 9.0	IS: 3025 (Part - 11)2002/APHA 22 nd Edition:2012-4500B
2	Total Suspended Solids, mg/L	34	100	600	200	IS: 3025 (Part - 17)2002/APHA 22 nd Edition:2012-2540D
3	Total Dissolved Solid, mg/L	1817	2100	2100	2100	IS: 3025 (Part - 16)2006/APHA 22 nd Edition:2012-2540C
4	Bio-chemical Oxygen Demand at 27°C.3 days, mg/L	26	30	350	100	IS: 3025 (Part - 44)2003/APHA 22 nd Edition:2012-5210B
5	Chemical Oxygen Demand, mg/L	195	250	No guideline	No guideline	IS: 3025 (Part - 58)2006/APHA 22 nd Edition:2012-5520D
6	Sodium Absorption Ratio	6.61	Lab SOP-By Calculation

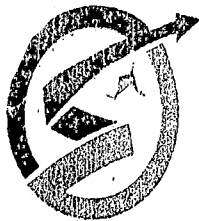
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(Checked By) *N. Singh*
07/04/2019



Rameshwar Kumar
(Authorized Signatory)

RAMESHWAR KUMAR
Technical Manager
Environ Tech Laboratories



202

Sophisticated Analytical Instruments Laboratories

Society (Registered as Society with Registrar of Firms & Societies, Punjab, Chandigarh)

Thapar Technology Campus, Bhadson Road, Patiala-147 004 (India)

TEST REPORT

Test Report No.:	NN(D)/19-20/095	Date:	12.06.2019
Service No.	NN(D)/19-20/095 (01)	Customer's Ref.	Sample collected by SAI Labs on dtd 04.06.2019
Customer's name and address:			
M/s Kuantum Paper Ltd village - Saila Khurd, District Hoshiarpur Kind attn.: Mr. Sanjay Chechi			
Sample Description	Effluent		
Condition of the sample received	O.K.		
Customer's sample identification No. (if any)	ETP Outlet (Tertiary Clarifier Outlet Effluent)		
Quantity/number of samples	Two litre / One		
Sampling Procedure (if any)	--		
Test parameters	pH, TSS, COD, BOD, SAR, AOX		
Standard/Specification/Method followed	APHA 23rd. Edn, IS:11624, 1986, ISO: 9562		
Deviations (if any)	--		
Documents constituting this report (if any)			
--			
Date of Receipt of Job	Date of Completion of Job	Total Number of Pages	
05.06.2019	12.06.2019	1	

TEST RESULTS

S. No.	Parameters	Test Method	Unit	Results
1.	pH	APHA 23rd. Edn.4500-H ⁺ B	--	7.0
2	Total Suspended Solid (TSS)	APHA 23rd. Edn.2540-D	mg/l	30
3	Chemical Oxygen Demand (COD)	APHA 23rd Edn. 5220B	mg/l	246
4	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	IS: 3025 (Part 44)-1993, Reaffirmed May, 2009	mg/l	13.4
5	Sodium Absorption Ratio (SAR)	IS:11624, 1986	--	4.9
6	AOX	ISO: 9562 1989 (E)	mg/l	4.64

.....end of the report.....

Susheel Mittal

Dr. S. Mittal
Professor In-charge, SAI Labs
(Authorized Signatory)

- Note:
1. The results listed refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
 2. Samples will be destroyed after one month from the date of issue of the test report unless otherwise specified
 3. This report is not to be reproduced wholly or in part and cannot be used as an evidence in the products is neither inferred nor implied. court of law and should not be used in any advertising media without special permission in writing.
 4. In case any reconfirmation of contents of the test report is required, please contact the authorized signatory of the test report within 15 days of the issue of test report

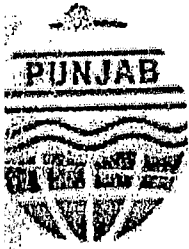
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SAI/FM/CSC-11

ANNEXURE R-4

PUNJAB POLLUTION CONTROL BOARD
ZONAL OFFICE JALANDAHR

Website:- www.ppcb.gov.in



Office Dispatch No : 4490 Registered/Speed Post Date: 23/7/18
Industry Registration ID: R12HSP41002 Application No : 7573348

To,
Pavan Khaitan
Village Saila Khurd, Distt. Hoshiarpur
Hoshiarpur, Punjab-144529

Subject: Grant of 'Consent to Establish' (NOC) for Modernization of an industrial unit u/s 25 of Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act, 1981.

With reference to your application for obtaining 'Consent to Establish' (NOC) for modernization of an industrial plant u/s 25 of Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act, 1981, you are, hereby, permitted to modernize the industrial unit to discharge the effluent(s) & emission(s) arising out of your premises subject to the Terms and Conditions as specified in this Certificate.

1. Particulars of Consent to Establish (NOC) for modernization granted to the Industry

Certificate No.	CTE/Mod/HSP/2018/7573348
Date of issue :	20/07/2018
Date of expiry :	19/07/2019
Certificate Type :	Modernization
Previous CTE/CTO No. & Validity	R14HSPCTOW1520756 From: 29/08/2014 To: 31/03/2019

2. Particulars of the Industry

Name & Designation of the Applicant	S.S. PAL, (PRESIDENT (WORKS))
Address of Industrial premises	Kwantum papers ltd (cellulosic ethanol pilot plant for rice straw management), Saila khurd, tehsil garhshankar, Garhshankar, Hoshiarpur-144529
Existing Capital investment of the industry	90876.0 lakhs
Capital investment for Modernization Project	33706 lakhs
Category of Industry	Red
Type of Industry	Pulp & Paper
Scale of the Industry	Large
Office District	Hoshiarpur
Consent Fee Details	Rs. 300500/- vide UTR no. SBI318136520989 dated 16.05.2018 as NOC fee

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<p>Raw Materials (Name with quantity per day)</p>	<p>AGRO RESIDUES @413T/day WOODY RAW MATERIALS (EXISTING) @134T/day WOODY RAW MATERIALS (PROPOSED) @366T/day PURCHASE PULP @62T/day SELF PREPARED PULP (PROPOSED) @90T/day COOKING CHEMICALS (CAUSTIC & WHITE LIQUOR) (EXISTING) @75T/day COOKING CHEMICALS (CAUSTIC & WHITE LIQUOR) (PROPOSED) @55T/day TOTAL CHLORINE @9.2T/day ELEMENTAL CHLORINE (REDUCED TO ZERO AFTER IMPL. OF CHLORINE DIOXIDE BLEACHING IN AGRO STREET AS WELL) @4.6T/day HYPOCHLORIDE (REDUCED TO ZERO AFTER IMPL. OF CHLORINE DIOXIDE BLEACHING IN AGRO STREET AS WELL) @4.6T/day CLO2 (PROPOSED) @8T/day OXYGEN (EXISTING) @1.3T/day OXYGEN (PROPOSED) @7.3T/day HYDROGEN PEROXIDE (H2O2) (EXISTING) @3.2T/day HYDROGEN PEROXIDE (H2O2) (PROPOSED) @1.8T/day MULTI FUELS (RICE HUSK, INDIAN COAL, PET COKE & BIOGAS) (217 TPD HUSK + 258 TPD COAL) (EXISTING) @475T/day MULTI FUELS (PROPOSED) @285T/day</p>
<p>Products (Name with quantity per day)</p>	<p>PAPER @450T/day AGRO PULP @165T/day HARD WOOD PULP (EXISTING) @60T/day HARD WOOD PULP (PROPOSED) @140T/day PULPER FOR WASTE PAPER/PURCHASED WOOD PULP (EXISTING) @20m³/h CONVENTIONAL CHEMICAL RECOVERY PLANT (BLACK LIQUOR EXISTING) @230T/day CONVENTIONAL CHEMICAL RECOVERY PLANT (BLACK LIQUOR PROPOSED) @350T/day CO-GENERATION POWER PLANT (EXISTING CAPACITY) @17.5Megawatt CO-GENERATION POWER PLANT (PROPOSED CAPACITY) @12Megawatt</p>
<p>By-Products, if any,(Name with quantity per day)</p>	<p></p>
<p>Details of the machinery and processes</p>	<p>As per project report</p>
<p>Details of the Effluent Treatment Plant</p>	<p>Trade Effluent @17000.0 KLD Domestic Effluent @114.0 KLD</p>
<p>Mode of Disposal of Effluent</p>	<p>Septic tank followed by ETP Approx. 110 acres within premises for plantation, 2050 acres in nearby villages for iggigation.</p>
<p>Standards to be achieved under Water (Prevention & Control of Pollution) Act, 1974</p>	<p>As prescribed by the Board.</p>
<p>Sources of emissions and type of pollutants</p>	<p></p>
<p>Mode of disposal of emissions with stack height</p>	<p></p>

Quantity of fuel required in TPD	Coal or Rice Husk@300Metric Tonnes/Day Coal or Rice Husk@350Metric Tonnes/Day Black Liquor @230Metric Tonnes/Day COAL@543Metric Tonnes/Day Black Liquor @350Metric Tonnes/Day
Type of Air Pollution Control Devices to be installed	Electrostatic Precipitator Electrostatic Precipitator Electrostatic Precipitator Electrostatic Precipitator Electrostatic Precipitator
Standars to be achieved under Air (Prevention & Control of Pollution) Act, 1981	



23/07/2018

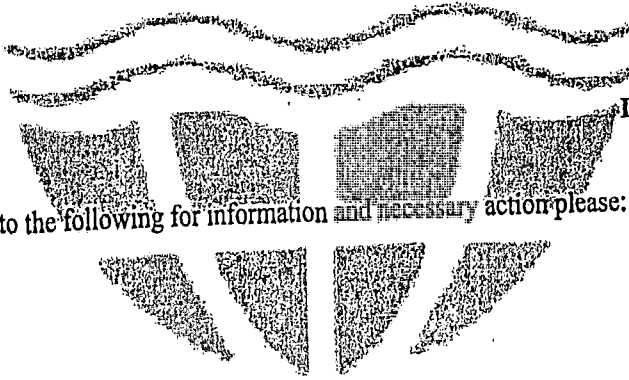
(Shiv Kumar)
Environmental Engineer

For & on behalf

of

(Punjab Pollution Control Board)

PUNJAB



Endst. No.:

Dated:

A copy of the above is forwarded to the following for information and necessary action please:

EERO Hoshiarpur



23/07/2018

(Shiv Kumar)
Environmental Engineer

For & on behalf

of

(Punjab Pollution Control Board)

A. GENERAL CONDITIONS

1. The industry shall apply for consent of the Board as required under the provision of Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981 & Authorization under Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016, two months before the commissioning of the industry.
2. The industry shall provide adequate arrangements for fighting the accidental leakages/ discharge of any air pollutant/gas/liquids from the vessels, mechanical equipments etc. which are likely to cause environmental pollution.
3. The Industry shall apply for further extension in the validity of the CTE atleast two months before the expiry of this CTE, if applicable.
4. The industry shall comply with any other conditions laid down or directions issued by the Board under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act,1981 from time to time.
5. The project has been approved by the Board from pollution angle and the industry shall obtain the approval of site from other concerned departments, if need be.
6. The industry shall get its building plans approved under the provisions of section 3-A of Punjab Factory Rules, 1952.
7. The industry shall put up display board indicating the Environment data in the prescribed format at the main entrance gate.
8. The industry shall provide port-holes, platforms and/or other necessary facilities as may be required for collecting samples of emissions from any chimney, flue or duct or any other outlets.

Specifications of the port-holes shall be as under:-

- i) The sampling ports shall be provided atleast 8 times chimney diameter downstream and 2 times upstream from the flow disturbance. For a rectangular cross section the equivalent diameter (De) shall be calculated from the following equation to determine upstream, downstream distance:-

$$De = 2 LW / (L+W)$$

Where L= length in mts. W= Width in mts.

- ii) The sampling port shall be 7 to 10 cm in diameter

9. The industry shall discharge all gases through a stack of minimum height as specified in the following standards laid down by the Board.

(i) Stack height for boiler plants

S.NO.	Boiler with Steam Generating Capacity	Stack heights
1.	Less than 2 ton/hr.	9 meters or 2.5 times the height of neighboring building whichever is more
2.	More than 2 ton/hr. to 5 ton/hr.	12 meters
3.	More than 5 ton/hr. to 10 ton/hr	15 meters
4.	More than 10 ton/hr. to 15 ton/hr	18 meters
5.	More than 15 ton/hr. to 20 ton/hr	21 meters
6.	More than 20 ton/hr. to 25 ton/hr.	24 meters
7.	More than 25 ton/hr. to 30 ton/hr.	27 meters
8.	More than 30 ton/hr.	30 meters or using the formula $H = 14 Qg^{0.3}$ $H = 74 (Qp)^{0.24}$ Where Qg = Quantity of SO2 in Kg/hr. Qp = Quantity of particulate matter in Ton/day.

Note : Minimum Stack height in all cases shall be 9.0 mtr. or as calculated from relevant formula whichever is more.

(ii) For industrial furnaces and kilns, the criteria for selection of stack height would be based on fuel used for the corresponding steam generation.

(iii) Stack height for diesel generating sets:

Capacity of diesel generating set	Height of the Stack	
0-50 KVA	Height of the building	+ 1.5 mt.
50-100 KVA	-do-	+ 2.0 mt.
100-150 KVA	-do-	+ 2.5 mt.
150-200 KVA	-do-	+ 3.0 mt.
200-250 KVA	-do-	+ 3.5 mt.
250-300 KVA	-do-	+ 3.5 mt.

For higher KVA rating stack height H (in meter) shall be worked out according to the formula:

$$H = h + 0.2 (KVA) 0.5$$

where h = height of the building in meters where the generator set is installed.

10. The industry shall put up canopy on its DG sets and also provide stack of adequate height as per norms prescribed by the Board and shall ensure the compliance of instructions issued by the Board vide office order no. Admin./SA-2/F.No.783/2011/448 dated 8/6/2010.
11. The industry shall put up canopy on its DG sets and also provide stack of adequate height as per norms prescribed by the Board and shall ensure the compliance of instructions issued by the Board vide office order no. Admin./SA-2/F.No.783/2011/448 dated 8/6/2010.
 - (i) Once in Year for Small Scale Industries.
 - (ii) Four in a Year for Large/Medium Scale Industries.
 - (iii) The industry will submit monthly reading/ data of the separate energy meter installed for running of effluent treatment plant/re-circulation system to the concerned Regional Office of the Board by the 5th of the following month.
12. The industry shall provide flow meters at the source of water supply, at the outlet of effluent treatment plant and shall maintain the record of the daily reading and submit the same to the concerned Regional Office by the 5th day of the following month.
13. The industry shall make necessary arrangements for the monitoring of stack emissions and shall get its emissions analyzed from lab approved/ authorized by the Board.
 - (i) Once in Year for Small Scale Industries.
 - (ii) Twice/thrice/four time in a Year for Large/Medium Scale Industries.
14. The pollution control devices shall be interlocked with the manufacturing process of the industry.
15. The Board reserves the right to revoke this "consent to establish" (NOC) at any time, in case the industry is found violating any of the conditions of this "consent to establish" and/or the provisions of Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 as amended from time to time.
16. The industry shall plant minimum of three suitable varieties of trees at the density of not less than 1000 trees per acre along the boundary of the industrial premises.
17. 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 or Local Laws or Regulations.
18. The consent does not authorize or approve the construction of any physical structures or facilities for undertaking of any work in any natural watercourse.
19. Nothing in this NOC shall be deemed to neither preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities or penalties to which the applicant is or may be subjected under this or any other Act.
20. The diversion or bye pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this consent is prohibited except.
 - (i) Where unavoidable to prevent loss of life or some property damage or
 - (ii) Where excessive storm drainage or run off would damage facilities necessary for compliance with terms and conditions of this consent. The applicant shall immediately notify the consent issuing authority in writing of each such diversion or bye-pass.
21. The industry shall ensure that no water pollution problem is created in the area due to discharge of effluents from its industrial premises.

22. The industry shall comply with the conditions imposed if any by the SEIAA/MOEF in the Environmental Clearance granted to it as required under EIA notification dated 14/9/06, if applicable.
23. The industry shall earmark a land within their premises for disposal of boiler ash in an environmentally sound manner, and / or the industry shall make necessary arrangements for proper disposal of fuel ash in a scientific manner and shall maintain proper record for the same, if applicable.
24. The industry shall obtain and submit Insurance cover as required under the Public Liability Insurance Act, 1991.
25. The industry shall submit a site emergency plan approved by the Chief Inspector of Factories, Punjab as applicable.
26. The industry shall provide proper and adequate air pollution control arrangements for control emission from its coal/fuel handling area, if applicable.
27. The Industry shall comply with the code of practice as notified by the Government / Board for the type of Industries where the siting guidelines / code of practice have been notified
28. Solids, sludge, filter backwash or other pollutant removed from or resulting from treatment or control of waste waters shall be disposed off in such a manner so as to prevent any pollutants from such materials from entering into natural water.
29. The industry shall submit a detailed plan showing therein, the distribution system for conveying waste-waters for application on land for irrigation along with the crop pattern to be adopted throughout the year.
30. The industry shall not irrigate the vegetable crops with the treated effluents which are used/ consumed as raw.
31. The industry shall ensure that its production capacity & quantity of trade effluent do not exceed the quantity mentioned in the NOC and shall not carry out any expansion without the prior permission/NOC of the Board.
32. All amendments/revisions made by the Board in the emission/stack height standards shall be applicable to the industry from the date of such amendments/revisions.
33. The industry shall not cause any nuisance/traffic hazard in vicinity of the area.
34. The industry shall maintain the following record to the satisfaction of the Board :-
 - (i) Log books for running of air pollution control devices or pumps/motors used for it.
 - (ii) Register showing the result of various tests conducted by the industry for monitoring of stack emissions and ambient air.
 - (iii) Register showing the stock of absorbents and other chemicals to be used for scrubbers.
35. The industry shall ensure that there will not be significant visible dust emissions beyond the property line.
36. The industry shall establish sufficient number of piezometer wells in consultation with the concerned Regional Office, of the Board to monitor the impact on the Ground Water Quantity due to the industrial operations, if applicable.
37. The industry shall provide adequate and appropriate air pollution control devices to contain emissions from handling, transportation and processing of raw material & product of the industry



23/07/2013

(Shiv Kumar)
Environmental Engineer

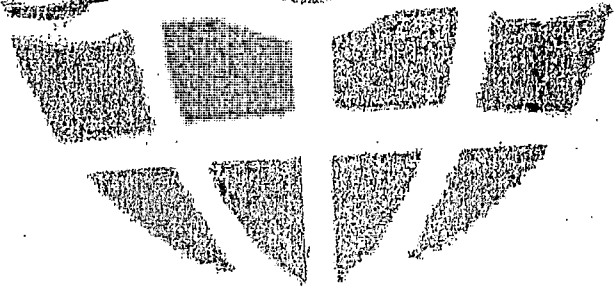
For & on behalf

of

(Punjab Pollution Control Board)

B. SPECIAL CONDITIONS

PUNJAB



1. The N.O.C. is valid for period of one year from the date of its issue or till the commissioning of the industry whichever is earlier.
2. The industry shall apply for the consents of the Board as required under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 alongwith the application for authorization under the provision of Hazardous Waste (Management Handling and Transboundary Movement) Rules, 2008 two months before the commissioning of the plant or at the time of submission of clearance application for the release of load, whichever is applicable.
3. The industry shall provide adequate arrangements for fighting the accidental leakages/discharge of any air pollutant/gas/liquids from the vessels, mechanical equipments etc. which are likely to cause environmental pollution.
4. The industry shall comply with any other conditions laid down or directions issued by the Board under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 from time to time.
5. Nothing in this N.O.C. shall be deemed to neither preclude the institution of any legal action nor relieve the applicant from any responsibilities or penalties to which the applicant is or may be subjected under the provisions of the Water/Air Acts respectively.
6. The project has been approved by the Board from pollution angle and the industry shall obtain the approval of site from other concerned departments, if need be.
7. The industry shall plant minimum three suitable varieties of trees all along the boundary of the industrial premises.
8. The industry shall provide terminal manhole at the end of each collecting system and a manhole upstream of final outlet (s) out of the premises of the industry for measurement of flow and for taking samples.
9. The industry shall, for the purpose of measuring and recording of quantity of water consumed, affix meters of such standards at such places as approved by the Environmental Engineer, Pollution Control Board, Regional Office.
10. The industry shall provided adequate and appropriate water/air pollution control device to control and treat the effluent/emission simultaneously with the establishment of proposed project, so as to achieve the standard prescribed by the Board for such units.
11. The industry shall ensure that at any time the parameters of the effluent/emission do not exceed the standards laid down by the Board from time to time for such discharge.
12. The industry shall discharge all gases through a stack of minimum height as specified in the following standards laid down by the Board.

(i) $H = 14 Qg^{0.3}$ or $H = 74 (QP)^{0.24}$
 Where Qg = Quantity of SO₂ in kg/ hr
 QP = Quantity of particulate matter in tonne/day

Note: Minimum Stack height in all cases shall be 9.0 mtr. or as calculated from relevant formula whichever is more.

(ii) Stack height for boiler plants

Steam Generating Capacity	Stack heights
1. Less than 2 ton/hr.	9 meters or 2.5 times the height of neighboring building whichever is more.
2. More than 2 ton/hr. to 5 ton/hr.	12 meters
3. More than 5 ton/hr. to 10 ton/hr.	15 meters
4. More than 10 ton/hr. to 15 ton/hr.	18 meters
5. More than 15 ton/hr. to 20 ton/hr.	21 meters
6. More than 20 ton/hr. to 25 ton/hr.	24 meters
7. More than 25 ton/hr. to 30 ton/hr.	27 meters
8. More than 30 ton/hr.	30 meters or using the formula $H = 14 Qg^{0.3}$ or $H = 74 (QP)^{0.24}$

Where Qg = Quantity of SO₂ in Kg/hr.
 QP = Quantity of particulate matter in Ton/day.

Note : Minimum Stack height in all cases shall be 9.0 mtr. or as calculated from relevant formula whichever is more.

(iii) Stack height for diesel generating sets:

Capacity of diesel generating set	Height of the Stack
0-50 KVA	+ 1.5 mt.
50-100 KVA	+ 2.0 mt.
100-150 KVA	+ 2.5 mt.
150-200 KVA	+ 3.0 mt.

200-200 KVA -do- + 3.5 mt.
 250-300 KVA -do- + 3.5 mt.
 For higher KVA rating stack height H (in meter) shall be worked out according to the formula:

$$H = h + 0.2 (KVA)^{0.5}$$

where h = height of the building in meters where the generator set is installed.

13. a) The industry shall ensure that at any time the emission do not exceed the emissions standards laid down by the Board from time to time.
 b) The industry shall ensure that the emissions from each stack shall conform to the following emission standards laid down by the Board.

Steam Generating capacity	Required particulate matter	
	A. Area upto 5 Km from the periphery of I and class-II town.	B. Other than "A" class
Less than 2 ton/hr.	800 mg/NM3	1200 mg/NM3
2 ton to 10 ton/hr.	500 mg/NM3	1000 mg/NM3
Above 10 ton to 15 ton/hr	350 mg/NM3	500 mg/NM3
Above 15 ton/hr	150 mg/NM3	150 mg/NM3
All emissions normalized to 12% carbon dioxide.		

14. The industry shall ensure that no water/air pollution problem or public nuisance is created in the area due to discharge of effluent/emissions from the industry.

15. The industry shall not consume any other fuel except pet coke in boiler and diesel for D.G. set without the prior written permission of the Board.

16. All amendments/revisions made by the Board in the effluent and/or emission/stack height standards shall be applicable to the industry from the date of such amendments/revisions.

17. The industry shall provide port-holes, platforms and/or other necessary facilities as may be required for collecting the samples of emissions from any chimney, flue or duct or any other outlets.

Specifications of the port-holes shall be as under:-

i) The sampling ports shall be provided at least 8 times chimney diameter down stream and 2 times up stream from the flow disturbance. For a rectangular cross section the equivalent diameter (D_e) shall be calculated from the following equation to determine upstream, downstream, distance:-

$$D_e = \frac{2LW}{L+W}$$

Where L=Length in mts. W=Width in mts.

ii) The sampling port shall be 7 to 10 cm in diameter.

18. The industry shall maintain the following record to the satisfaction of the Board:

a) Log books for running of water/air pollution control devices or pumps/motors used for running of the same.

b) Register showing the results of various tests conducted by the industry for monitoring of effluent/stack emissions and ambient air.

c) Register showing the stock of absorbents and other chemicals to be used for treatment of effluent/emissions.

19. The industry shall keep the height of all exhaust pipes with ventilation equipments etc. at least 3 meters above the roof level.

20. The industry shall install separate energy meter for its water/air pollution control device plant and maintain the record on daily basis regarding consumption of energy for the running and maintenance of effluent/emission treatment plant.

21. The adequacy and efficiency of the water/air pollution control devices will be the entire responsibility of the industry.

22. The industry shall re-circulate the entire cooling water and shall maintain the recirculation system properly.

23. The industry shall provide certified canopy on the DG set to comply with the provisions of EPA Rules, regarding noise pollution.

24. The industry shall obtain the Authorization under the Hazardous Waste (Management Handling and Transboundary Movement) Rules, 2008 as amended from time to time.

25. The industry shall operate the air pollution control devices properly & regularly to ensure that no complaint is received against industry.

26. The industry shall install electromagnetic flow meters at sources of water supply and final outlet of effluent treatment plant.

27. The industry shall provide proper rain water harvesting system in its premises for the roof top rain water only alongwith separate & visible pipeline of light blue colour for this system and shall maintain the rain water harvesting system properly, to ensure that no ground water pollution occurred and no surface run off or any other rain water flowing in lawn/garden is allowed to enter in the rain water harvesting system.

28. The industry shall submit building plan prepared & duly authenticated by the Director of Factories/Chartered Architect/Chartered Engineer as may be authorized to do so under the provisions of section 3-A of Punjab Factory Rules, 1952.

29. The industry will not increase the trade effluent more than 17000 KLD.
30. The industry shall comply with the conditions of the Environment Clearance granted under Press Note 17 by SCA cum SAC letter no. CSA/2018/K/444 dated 23.04.2018.
31. The industry will ensure to obtain the No Objection Certificate from CGWA for extraction of ground water @ 21600m³/day which is being withdrawn by the industry for the existing production capacity.
32. The industry shall obtain necessary statutory permissions/clearances from all other concerned departments.
33. The industry shall put up display board indicating Environment data at the main entrance gate.
34. The Board reserves the right to revoke the NOC granted to the industry at any time in case the industry is found violating any of the conditions of NOC or any provision of Air (Prevention & Control of Pollution) Act, 1981 & Water (Prevention & Control of Pollution) Act 1974 as amended time to time.



23/07/2018

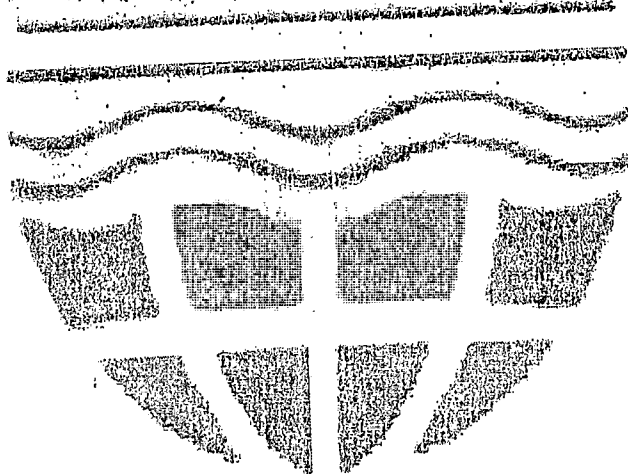
(Shiv Kumar)
Environmental Engineer

For & on behalf

of

(Punjab Pollution Control Board)

PUNJAB



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Water sampling and preservation techniques

A.Gnanavelu
CPCB, BANGALORE

Standard Operating Procedure (SOP)

- Analytical method
- Safety
- Waste management
- Apparatus and equipments
- Reagents and standards
- **Sample collection**
- **Preservation**
- Shipment
- Storage conditions
- Acceptance criteria
- Calibration and standardization
- Data validity

Sample collection

Objective:

- Objective of sampling is to collect a portion of material small enough in volume to be transported comfortably and yet large enough for analytical purposes while still representing the material being sampled.
- It is to demonstrate whether continuing compliance with specific regulatory requirements has been achieved

Selection of sample containers

- Selection of sample container is utmost importance in sampling. Containers are generally made of glass or plastic. Some sample analytes may get absorbed into the walls of plastic containers and/or some contaminants may leach into samples.
- Trace level of some metals and pesticides may get adsorbed and/or absorbed onto the walls of the glass container. In the same way, silica, sodium, and boron may be leached from soft glass.
- Always use hard glass containers for all organics analyses such as pesticides, volatile organics, PCBs, and oil & grease.
- Some of the analytes like pesticides, PAH etc. are light sensitive. Hence collect them in amber-coloured glass containers to minimize photo degradation

Selection of type of sampling

- **Grab**
- **Composite**
- **Integrated**

Grab sampling

- Grab samples are also called as spot or catch samples. Grab samples are single samples collected at a specific spot at a site in specified time. Grab samples are to be collected only when the source is known to be constant in composition for an extended period of time. Examples are, ground water samples, well mixed surface waters, large lakes, rivers, estuaries, shorelines, wastewater streams that are expected to be constant in composition over an extended period of time, like spent wash line in a distillery.
- When the source composition varies from location to location, like upstream and downstream of a river, then grab samples can be collected from appropriate locations. This helps in finding out the extent of variation and duration of variation.

Composite sampling

- Composite sampling is carried out when the liquid matrix is expected to be heterogeneous and varies from time to time or depth or at many sampling locations. This type of sampling provides a representative sampling for this type of matrix and is carried out by combining portions of multiple grab samples collected at regular intervals. If the flow is expected to be constant, then volume based sampling can be carried out. If the flow varies, like sewerage line, then sampling can be done by flow based composite, i.e., collecting sample that is proportional to the discharge. Time composite sampling represents a 24-hour period, with interval being 1-3 hours

Contd

- Use composite samples only for parameters that will remain unchanged under the sampling conditions, preservation and storage. For parameters like pH, temperature, residual chlorine, carbon dioxide, alkalinity, sulfide, dissolved oxygen, Oil&Grease etc. avoid composite sampling and analyse individual samples as soon as possible, preferably in the field itself, except for sulfide and Oil &Grease

Integrated sampling

- Integrated sampling is carried out by collecting mixture of grab samples collected from different points simultaneously. The points may be horizontal or vertical variation. Examples include river, stream or reservoir or lake that varies in composition across the width and depth. Also in industries that have different streams and combined treatment is proposed, than integrated sampling of different streams can be made to understand the significant effect on treatment.

Selection of sampling points

- Selection of sampling points plays an important role in sampling. The site selection should be based on the objective of the study. If the monitoring is carried out for judging suitability of water for drinking purpose, then the sampling point shall be near the intake point. Always samples must be taken from locations that are representative of the source, treatment plant, storage facilities, point of discharge, and point of use. Eventhough there is no methodology for site selection on a cook book basis some general basic rules can be followed to have a sound sampling programme

Contd

Always have a reference station upstream of any discharge point like industrial outfall, city sewage drain etc. The reference point allows us to ascertain the background water quality. Additional downstream stations can be fixed to assess the extent of influence of discharge and to find the recovery point

Contd

The points chosen should generally yield samples that are representative of the system as a whole. For this it is important to select a well-mixed zone. When samples are collected from a river or stream, the observed results may vary with depth, flow and distance from the shore. Hence, if equipments are available collect an integrated sample from top to bottom in the middle of the lake or river or from side to side at mid-depth. Otherwise, preferably collect samples at various points of equal distance across the water body. If only one sample can be collected, collect it in the middle of the water body at mid depth

Contd

Avoid areas of turbulence and at weirs. Generally collect samples beneath the surface with the mouth directed towards the current. For oil and grease, collect sample at the surface.

In case of groundwater sampling, select wells that are in continuous use.

Selection of type of filling the container

Depending on the type of analysis to be performed, fill the container full or leave space for aeration. For most organic compound determination like pesticides, PAH, VOC etc. and for sulphide fill the container with out any air space. For microbiological and inorganic analyses leave space for aeration and mixing. The space to be left for aeration and mixing should be atleast 1% of the container volume. If the bottle is with preservative take care that the preservative added is not lost or diluted by overflow

In - situ measurements

Parameters like pH, conductivity are temperature dependent. Hence, if the temperature varies significantly, the results of these parameters also vary. Delay in analysis may also lead to loss of dissolved gases like carbon dioxide, oxygen. Hence some of the parameters like temperature, ORP, dissolved gases, shall be analysed in situ and parameters like pH, conductivity, alkalinity, residual chlorine immediately after sample collection

Sample labeling

- Labeling is an important part in sampling programme. The following information should be included in the label. Use water proof ink to record all the information.
- Date and time of sampling
- Sample field code
- Sampling point
- Nature of sample: Effluent / Surface water / Ground water / Others
- Type of sample (Grab/Composite/Integrated)
- Pre-treatment or preservation carried out on the sample
- Any special notes for the analyst
- Name and sign of sample collector.

Collection and preservation of samples for organics and trace metals

Special care is required for samples containing trace metals and organic compounds like PAH, pesticides etc. The concentration of these constituents may be very low and may be lost or easily contaminated when proper sampling and preservation procedures are not followed

Pesticides

Phthalate esters, widely used as plasticizers, can be leached by water and can cause positive ECD response and are source of interferences. Hence avoid plastic containers to avoid interference from containers.

Wash the container with soap water followed by tap water, distilled water, acetone and finally with high grade hexane. If the container is heavily contaminated, wash the container as given above, and heat in a muffle furnace at 400°C for 15-30 min. After drying store inverted or cover mouth with aluminium foil.

Ensure that all the sampling equipments are clean before use. Collect minimum 1000mL, either by grab or composite sampling and fill the bottle with out any air gap. Transport under iced condition and submit the sample to laboratory as early as possible so that the laboratory can extract with in the specified period.

Trace metals

The best sample container to be used for trace metals is either container made of polypropylene or polyethylene with a polyethylene cap. Also, hard borosilicate glass can be used. Thoroughly clean container with metal-free non-ionic detergent solution, rinse with tap water, soak in acid, and then finally with metal free water. Use 1+1 HCl or 1+1 HNO₃ for soaking.

Ensure that all the equipments to be used for sampling are clean before use. Collect minimum 1000mL, either by grab or composite sampling. Leave an air space of approximately 1% of container volume. Immediately preserve samples by acidifying with highly pure concentrated nitric acid (HNO₃) to pH <2 to minimize precipitation and adsorption on container and transport in ice cold condition.

If mercury is to be analysed, collect separate sample for mercury and preserve by using HNO₃ to pH <2 and transport in ice cold condition (Temp. <6°C).

Polynuclear Aromatic Hydrocarbons (PAH)

Select amber coloured hard glass bottles fitted with a screw cap lined with TFE. Wash the container with detergent, rinse with tap water followed by distilled water. Rinse container with acetone or methylene chloride and dry at 105°C for 1 hr. When bottles are cool, seal the mouth using TFE seals or with aluminium foil.

Collect 1000 mL of sample either by grab or composite sampling technique. Fill the bottle with out any air gap. If composite sampling technique is followed, collect samples in refrigerated glass containers and protect from light during composting. If residual chlorine is present, add 80mg sodium thiosulfate per litre of sample and mix well. Transport in ice cold condition and submit the sample to laboratory as early as possible so that the laboratory can extract with in the specified period

Flow measurement

Flow measurement is a fundamental step for design of treatment plants, wastewater collection and for disposal facilities. Flow measurement also plays an important role in conservation of water. By knowing the amount of water withdrawn, from any water source, water utilized for some purpose and water discharged, one can calculate the amount of water lost or unaccounted. The data can be used to calculate the total discharge of any industrial effluent into a water body and also to calculate the load of some important parameters like BOD, COD, etc.

Now a days, flow metering devices are available for accurate measurement of flow. It consists of two elements: (1) a sensor and (2) a converter device. The sensor is exposed to the flow and the converter is a device used to translate the signal from the sensor into a flow reading

Contd

Flow measurement by Bucket method:

This method is suitable for small drains/ streams where free fall of water is available. Take a bucket of known volume. Insert the bucket in to the flow and note the time taken for the bucket to get filled up. Calculate the flow in litre / min

Contd

Flow measurement by using V-Notch:

V-Notch is a triangular weir used to measure small discharges. The upper edge of the section is always above the water level and hence the channel is always triangular simplifying calculation of the cross-sectional area.

It is generally angled at 90 degrees and provided at the inlet and outlet of water treatment plants for measurement of flow. For 90 degree angled V-Notch, the formula for measurement of flow is as follows.

$$Q = 1.4 \times h^{2.5}$$

Where,

Q= Flow, m³/sec

H=Height of water level, mts.

Contd

Flow measurement in rivers and sewerage lines:

Select a place where there is free flow of water. Measure the breadth and depth. Fix the length and mark the starting and end point. Place a ball or wooden float at the starting point and start the stop watch immediately. Note the time taken to reach the end point. Calculate the flow using the below given formula.

$$Q, \text{ m}^3/\text{s} = (L \times B \times D) / T$$

Where,

L=Length in mts.

B=Breadth in mts

D=Depth in mts

T=Time in seconds.

Measurement of temperature

Thermometers are generally calibrated for total immersion. This means that the meniscus of the mercury column is level with the surface of the liquid being measured. If part of the mercury column is visible above the liquid surface, a correction may be necessary. The equation for correction is as follows:

$$\text{Corrected temperature, } T = t + \frac{(t - t') \times (t - t'')}{6000}$$

Where,

t = Actual temperature reading, ° C

t' = Ambient temperature, ° C

t'' = Temperature at immersion point, ° C

Measure the ambient temperature (t'). Take sample in a beaker and insert the thermometer. Note t and t''. Calculate the actual temperature and report to the nearest 0.1 or 1.0° C.

Table-I SAMPLING AND HANDLING REQUIREMENTS

Parameter	Container	PRESERVATION	MAX.STORAGE
Acidity	P,G	Refrigerate	24 h
Alkalinity	P,G	Refrigerate	24h
BOD	P,G	Refrigerate	6h
Boron	P,G	HNO ₃ to pH <2	28d
Carbon, Total	G(B)	Analyse immediately or add HCl to pH<2	7 days
Carbon dioxide	P,G	Analyse immediately	15 min
COD	P,G	Analyse immediately or add H ₂ SO ₄ to pH<2, refrigerate	7 days
Chloride	P,G	Refrigerate	--
Chlorine, residual	P,G	Analyse immediately	15 min
Chlorophyll	P,G	Unfiltered, dark, 4°C	48 hours
Colour	P,G	Refrigerate	48 h
Conductivity	P,G	Refrigerate	48h
Cyanide, Total	P,G	Add NaOH to pH>12, refrigerate in dark	24 h
Fluoride	P	--	28 days
Hardness	P,G	Add HNO ₃ to pH<2	6 months
Metals, General	P(A),G(A)	Add HNO ₃ to pH<2	
Metals, Dissolved, General	P(A),G(A)	Filter immediately, add HNO ₃ to pH<2	
Chromium VI	P(A),G(A)		
Nitrogen, Ammonia	P,G	Analyse immediately or add H ₂ SO ₄ to pH<2, refrigerate.	7 days
Nitrogen, Organic	P,G	Refrigerate, add H ₂ SO ₄ to pH <2.	7 days
Nitrate	P,G	Analysis as soon as possible, refrigerate	48h
Nitrite	P,G	Analysis as soon as possible, refrigerate.	--
Nitrate+Nitrite	P,G	Add H ₂ SO ₄ to pH<2, refrigerate	2 days
Oil & Grease	G(S),Wide mouth	Add H ₂ SO ₄ to pH<2	28 days
Oxygen, dissolved	G	Analyse immediately	15 minutes
Pesticides	G(S)	Refrigerate, add ascorbic acid if residual chlorine is present	7 days

SUMMARY

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Parameter	Preservative	Remarks
COD, NH ₃ -N, TKN, Phenol, NO ₃ +NO ₂ -N, Total phosphorous	H ₂ SO ₄ to pH <2	Cool < 6° C
Hardness	HNO ₃ or H ₂ SO ₄ to pH <2	
Oil & Grease	HCl or H ₂ SO ₄ to pH <2	Cool < 6° C
Cyanide	NaOH to pH >12	Add Thio, if TRC is present. Cool < 6° C
Sulphide	4 drops of 2N Zinc acetate/100mL; Add NaOH to pH >9	
Boron, Metals	HNO ₃ to pH <2	
Hexavalent chromium	Adjust pH to 9 using buffer solution and 0.6mL of 5N NaOH.	Cool < 6° C
Mercury	HNO ₃ to pH<2	Cool < 6° C
Dissolved oxygen	--	Titration may be delayed after acidification.
Acidity, alkalinity, BOD, Colour, EC, Solids, Sulphate	--	Cool < 6° C
Nitrate, Colour, Nitrite, Odour, Turbidity	--	Analyze as soon as possible.
TRC, pH, Temperature	--	Analyze immediately
Chloride, Fluoride	None required	--

Dissolved oxygen measurement in biological flocs

This modification is used to determine DO for biological flocs such as activated sludge process, which have high oxygen utilization rate.

Requirements: 1 lit. reagent bottle, siphon tube, BOD bottle, reagent

Add 10mL Copper sulphate-sulfamic acid inhibitor to a 1 litre glass stoppered bottle. Collect sample, stopper and mix by inverting. Allow the suspended solids to settle and siphon the supernatant into a 300mL BOD bottle. Add 1 mL manganous sulphate solution, followed by 1mL alkali-iodide-azide reagent by holding pipette just above liquid surface. Stopper carefully and mix by inverting bottle few times.

Sludge Volume Index (SVI)

It is the volume in milliliters occupied by 1g of a suspension after 30 min settling. SVI value is typically used to monitor settling characteristics of activated sludge and other biological suspensions. Smaller the value, easier is the settling of sludge

$$\text{SVI} = (\text{Settled sludge volume, mL/L} \times 1000) / \text{Suspended solids, mg/L}$$

Inference:

< 100 - Very Good settling

100 – 150 - Good settling

150 – 200 - Poor settling

Food to Microbe ratio (F/M):

This parameter is also related to settling characteristics of activated sludge or any biological flocs.

$$F/M = \frac{\text{Inlet BOD} \times \text{Flow}}{\text{MLSS} \times \text{Aer. Tank volume}}$$

Where

BOD = mg/L

Flow = m³ / day

MLSS = mg/L

Aeration tank volume = m³

Contd

Optimum value: 0.3 to 0.6

Low F/M ratio (< 0.3): Poor settling - Amount of food present is insufficient to maintain the growth of microbes. Hence cells become weak and become light and resist sedimentation. Sludge obtained under these conditions is referred to as “Dispersed floc”.

High F/M ratio (>0.6): Bulking sludge - Amount of food is high and this lead to growth of some microbes which are filamentous in nature. This type of growth does not settle well, remain in suspension almost indefinitely. Sludge obtained under these conditions is referred to as “ Bulking sludge”.



Punjab Pollution Control Board

Zonal office, Near PSIEC, Water Tank, Focal Point, Jalandhar

Phone No. 0181-2601612 www.ppcb.gov.in Email ID – seezojal.ppcb@punjab.gov.in

No 5557
To

Date 6/9/18

M/s Kuantum Papers Ltd.,
Village Salla Khurd,
Tehsil Garhshankar, Distt. Hoshiarpur.

Subject: Notice to issue directions u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988 & show cause notice for revocation of consent to operate under the Water Act (Prevention & Control of Pollution) Act, 1974.

Whereas; it is mandatory on the part of industry to obtain the 'consent to operate' of the Board under Water (Prevention & Control of Pollution) Act, 1974 for discharge of effluent from its industrial premises and to operate an industrial plant.

And whereas it is also mandatory on the part of industry to install proper and adequate pollution control devices so that the concentration of various pollutants conforms to the effluents standards prescribed by the Board.

And whereas, the industry was granted the 'Consent to establish' (NOC) under the Water Act 1974 and Air Act. 1981 valid upto 19/7/2019 with special conditions mentioned therein.

And whereas, the industry was granted the consent to operate under the Water Act (Prevention & Control of Pollution) Act, 1974 valid upto 31/3/2019 with special conditions mentioned therein.

And whereas, CPCB SMS alert for ETP report received from Regional office Hoshiarpur through mail on dated 23/5/2018 & 31/8/2018 and details of SMS Alerts from 5/5/2018 to 30/8/2018 it reveals that all parameters of treated effluent of the industry are beyond the prescribed limit of the Board. The detail of SMS alert received from Punjab Pollution Control Board of the industry are as below:-

Date	Time	Parameters	Result(mg/l)	Prescribed Standards (mg/l)
05.05.2018	4:17pm	BOD, COD, TSS	271,277.5,295.5	30,350, 500
20.06.2018	5:15am-11.45 am	TSS	93.3-73.8	500
02.07.2018	1:38pm	TSS	79.8	500
03.07.2018	10:45pm	TSS	56.7	500
04.07.2018	5:15pm-11.45 pm	TSS, COD, BOD	115.7,298.5,69.8,	500,350,30
13.07.2018	7:08am-7.15 am	TSS	53.3-58.7	500
16.07.2018	7:15am	TSS	53.0	500
26.07.2018	4:15pm-4.45 pm	COD, TSS, BOD,	293.100.6,433.5, 43.9	350,500,350, 30
27.07.2018	12:00am	TSS	113.2	500
18.08.2018	9:29pm	TSS	75.6	500
20.08.2018	3:30pm	TSS	100.7	500
23.08.2018	6:26am-12.15 pm	TSS	70.9,66.1	500
24.08.2018	3:00am	TSS	53.2	500
27.08.2018	5:00pm-5.45 pm	TSS, COD, BOD,	115.9,431.9,43.9	500,350,30
30.08.2018	3:15am- 3.29 pm	COD, TSS	273.2, 101.5	350,500

From above, it is clear that BOD is going 5 times high from the prescribed limit of the Board from 5-5-2018 to 30-8-2018.

And whereas, a complaint received against the industry in Regional office Hoshiarpur from Sh. Sukhjinder Singh, Bhor, Near Octori Banga Road, Phagwara Distt. Kapurthala and on Eco Samparak also and the officer of the Board were visited on 27-5-2018 and collected sample from the ETP & from pipes leads from outlet of ETP for

irrigation purpose in the field of Sh. Satnam Singh, S/o Sh. Sohan Singh. The analysis report received from Head office and details are as under:-

Sr. No.	Parameters	ETP results of industry	Aeration Tank	Sh. Satnam Singh S/o Sohan Singh Near Tube-well outlet of sample	Prescribed standards
1)	pH	7.76	---	7.63	7.0-8.5
2)	TSS	38	--	92	500
3)	COD	205	----	232	350
4)	BOD	26	----	34	30
5)	SAR	5.96	--	5.72	26
6)	MLSS	--	6290	--	---

From the above results reveals that the parameters of sample collected from ETP are within the limit. But, the sample collected from pipes leads from outlet of ETP for irrigation purpose in the field of Sh. Satnam Singh, S/o Sh. Sohan Singh is beyond the limit (BOD=34 mg/ltr).

And whereas, the industry is failed to comply with the conditions of consent granted to it and is violating various provisions of the Water Act (Prevention & Control of Pollution) Act, 1974.

And whereas the matter has been considered by the Competent Authority and it has been decided to give hearing u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 & show cause notice for revocation of Water Act, 1974 to industry.

Now, therefore, Punjab Pollution Control Board in exercise of the powers conferred upon it u/s 33-A of the Water (Prevention & control of Pollution) Act, 1974 as amended in 1988 & show cause notice for revocation of Water Act, 1974 to industry, proposes to issue following directions:

1. That the industry will dismantle and remove all outlets and stop forthwith discharging its trade effluent onto land for stagnation or through any other mode.
2. That the industry will not restart any process unless all necessary water pollution control measures are taken and concentration of various pollutants in its treated trade effluent conforms to the effluent standards laid down by the Board for such discharges.
3. That the industry will not restart discharging effluent until it obtains the consent of the Board u/s 25/26 of the Water (Prevention & control of Pollution) Act, 1974 as amended in 1988.
4. That Punjab State Electricity Board authority will be directed to disconnect the supply of electricity available to industry.

Before the above action is taken you are, hereby, given an opportunity of personal hearing to file objections, if any, on the proposed directions before the **Chairman of the Board, Punjab Pollution Control Board Nabha Road, Patiala on 18/09/2018 at 11.00 AM** to explain the position, failing which the above said directions shall be confirmed without giving any further notice/ opportunity.

For Sr. Environmental Engineer
Dated. _____

Endst. No. _____

A copy of the above is forwarded to the Environmental Engineer, Regional Office, Punjab Pollution Control Board, Hoshiarpur for information. He is requested to inform the industry well before the date of hearing.

For Sr. Environmental Engineer

Ref No. Admn/ 5077
September 14, 2018

To

The Chairman,
Punjab Pollution Control Board,
Nabha Road,
Patiala.

Subject: Notice to issue directions u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988 & show cause notice for revocation of consent to operate under the Water Act (Prevention & Control of Pollution) Act, 1974.

Reference: Your office letter no. 5557 dated 06.09.2018.

Sir,

It is submitted that the points mentioned in your above referred letter have been perused and the point wise reply is given as under:

1. SMS alerts for ETP received during the period 05.05.2018 to 30.08.2018 have been duly replied to CPCB by us, the detail of which is as under:

Date	Time	Parameters	Result (mg/l)	Reply sent to CPCB vide email Dated
05.05.2018	4:17pm	BOD,COD, TSS	271, 277.5, 295.5	07.05.2018
20.06.2018	5:15am-11:45am	TSS	93.3-73.8	28.06.2018
02.07.2018	1:38pm	TSS	79.8	02.07.2018
03.07.2018	10:45pm	TSS	56.7	04.07.2018
04.07.2018	5:15pm-11:45pm	BOD,COD, TSS	115.7, 298.5, 69.8	04.07.2018
13.07.2018	7:08am-7:15am	TSS	53.3-58.7	13.07.2018
16.07.2018	7:15am	TSS	53	16.07.2018
20.07.2018	4:15pm-4:45pm	BOD,COD, TSS	293, 100.6, 433.5, 43.9	21.07.2018
27.07.2018	12:00am	TSS	113.2	27.07.2018

18.08.2018	09:29pm	TSS	75.6	20.08.2018
20.08.2018	03:30pm	TSS	100.7	20.08.2018
23.08.2018	6:26am-12:15pm	TSS	70.9, 66.1	23.08.2018
24.08.2018	3:00am	TSS	53.2	24.08.2018
27.08.2018	5:00pm-5:45pm	BOD,COD, TSS	115.9, 431.9, 43.9	28.08.2018
30.08.2018	3:15am-3:29am	COD,TSS	273.2, 101.5	30.08.2018

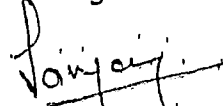
The detailed reply of these SMS alerts is annexed as per Annexure-1.

With regard to 5 times higher value of BOD than the prescribed limits as mentioned in the said notice, it is submitted that the value of BOD in the SMS alert dated 05.05.2018 was indicated as 271mg/l at 4:17pm which was due to technical fault in the online effluent monitoring system in our company and the same has been mentioned in the detailed reply. We are always meeting with the prescribed standards with respect to all the parameters for the industry

- Regarding collection of treated effluent samples from ETP and pipe leading from outlet of ETP for irrigation purposes in the field of Sh. Satnam Singh s/o Sh. Sohan Singh on 27.05.2018, it is submitted that the analysis results of these samples indicate that the values of all the parameters of the sample collected from the outlet of ETP are within the prescribed limits of the Board. The slight higher value of BOD as 34mg/l, in the treated effluent samples collected from the pipe in the field of Sh. Satnam Singh s/o Sh. Sohan Singh is due to some contamination from the field because the same treated effluent having BOD level of 26mg/l is leading to the pipes of irrigation network. As such, our industry is meeting with the standards of various parameters prescribed by the Board.

In light of the above, it is submitted that we have not violated any of the norms as mentioned in the above said notice. Therefore, it is humbly requested that the notice to issue directions under section 33-A of the Water Act 1974 and show cause notice for revocation of consent under Water Act, 1974 may kindly be withdrawn.

With Regards


Sanjay Kumar

General Manager

(PROCESS-QC)



Punjab Pollution Control Board

Zonal office, Near PSIEC, Water Tank, Focal Point, Jalandhar

Phone No. 0181-2601612 www.ppcb.gov.in Email ID - seezojal.ppcb@punjab.gov.in

No. 6049
To

Date 26/9/18

M/s Kuantum Papers Ltd.,
Village Salla Khurd, Tehsil Garhshankar,
Distt. Hoshiarpur

Subject: Proceedings of the personal hearing before Hon'ble Chairman of the Board on 18/9/2018 at Head office Patiala u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988 & show cause notice for revocation of consent to operate under the Water Act (Prevention & Control of Pollution) Act, 1974.

On behalf of Board: - Er. Krunesh Garg (Member Secretary).

Er. G.S Majithia CEE, Jalandhar

On behalf of Industry: - Sh. Sanjay Kumar Chechi (G.M).

The officer of the Board brought out that the industry was granted the 'Consent to establish' (NOC) under the Water Act 1974 and Air Act, 1981 valid upto 19/7/2019 for production of paper @ 450 TPD by using agro waste. The industry was granted the consent to operate under the Water Act (Prevention & Control of Pollution) Act, 1974 valid upto 31/3/2019 with special conditions mentioned therein. The CPCB SMS alert for ETP report received from Regional office Hoshiarpur through mail on dated 23/5/2018 & 31/8/2018 and details of SMS Alerts from 5/5/2018 to 30/8/2018 it reveals that all parameters of treated effluent of the industry are beyond the prescribed limit of the Board. The detail of SMS alert received from Punjab Pollution Control Board of the industry are as below:-

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04.07.2018	5:15pm-11.45 pm	TSS,COD,BOD	115.7,298.5,69.8,	50,350,30
13.07.2018	7:08am-7.15 am	TSS,	53.3-58.7	50
16.07.2018	7:15am	TSS	53.0	50
26.07.2018	4:15pm-4.45 pm	COD,TSS,BOD,	293.100.6,433.5, 43.9	350,50,350, 30
27.07.2018	12:00am	TSS	113.2	50
18.08.2018	9:29pm	TSS	75.6	50
20.08.2018	3:30pm	TSS	100.7	50
23.08.2018	6:26am-12.45 pm	TSS	70.9,66.1	50
24.08.2018	3:00am	TSS	53.2	50
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30.08.2018	3:15am- 3.29 pm	COD, TSS	273.2, 101.5	350,50

From above, it is clear that BOD is going 5 times high from the prescribed limit of the Board from 5-5-2018 to 30-8-2018.

A complaint received against the industry in Regional office Hoshiarpur from Sh. Sukhjinder Singh, Bhor, Near Octori Banga Road, Phagwara Distt. Kapurthala and on Eco Samparak also and the officer of the Board were visited on 27-5-2018 and collected sample from the ETP & from pipes leads from outlet of ETP for irrigation purpose in the field of Sh. Satnam Singh, S/o Sh. Sohan Singh. The analysis report received from Head office and details are as under:-

Sr. No.	Parameters	ETP results of industry	Aeration Tank	Sh. Satnam Singh S/o Sohan Singh in field outlet of sample	Prescribed standards
1)	pH	7.76	---	7.63	7.0-8.5
2)	TSS	38	--	92	500
3)	COD	205	----	232	350
4)	BOD	26	----	34	30
5)	SAR	5.96	--	5.72	26
6)	MLSS	--	6290	--	---

From the above results reveals that the parameters of sample collected from ETP are within the limit. But, the sample collected from pipes leads from outlet of ETP for irrigation purpose in the field of Sh. Satnam Singh, S/o Sh. Sohan Singh is beyond the limit (BOD=34 mg/ltr).

The industry is failed to comply with the conditions of consent granted to it and is violating various provisions of the Water Act (Prevention & Control of Pollution) Act, 1974.

The representative of the industry submitted during the hearing that the value of BOD in the SMS Alert is due to technical fault in the Online Effluent Monitoring System. Regarding collection of treated effluent sample from the field of Sh. Satnam Singh it indicate the slight higher value of BOD.

After hearing, the officer of the Board and representative of the industry, the Chairman of the Board decided that:-

- 1) The Chief Environmental Engineer, Jalandhar shall Co-ordinate the visit of PBTI to the industry within 7 days and PBTI shall collect and analysis the treated trade effluent sample and submit report to the Punjab Pollution Control Board.
- 2) The Chief Environmental Engineer, Jalandhar shall visit the industry & asses the adequacy of pollution control measures / disposal arrangements made by the industry & shall submit report / recommendations before next date of hearing.
- 3) The further action will be taken out after receipt of the report.

Encl. No.....

dated.....

For Sr. Environmental Engineer

A copy of the above is forwarded to Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur for information and necessary action as per the above decision.

For Sr. Environmental Engineer

Item No. 12

Court No. 1

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

Original Application No. 850/2018

Residents of Saila Khurd, Raniala Applicant(s)
Versus

State of Punjab Respondent(s)

Date of hearing: 19.12.2018

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER****Application is registered based on a complaint received by letter****ORDER**

Allegation in this letter, which has been treated as an application, is that pollution is being caused by Kuantum Paper Mill, affecting inhabitants of Saila Khurd, Raniala, Saila Kalan, Jassoval, Majari, Paddi Khusi and Pensara village, District Hoshiarpur, Punjab, by discharging polluted air and water.

Let a joint report be furnished by Central Pollution Control Board (CPCB) and Punjab State Pollution Control Board (PSPCB) on factual aspects of the matter and action taken, if any, to this Tribunal within one month from the date of receipt of copy of this order by e-mail at ngt.filing@gmail.com.

The nodal agency will be PSPCB to coordinate and comply with the order.

Copies of this order along with complaint be sent to the PSPCB and CPCB for compliance by e-mail.

Needless to say that order of National Green Tribunal is binding as a decree of Court and non-compliance is actionable by

way of punitive action including prosecution, in terms of the National Green Tribunal Act, 2010.

List for further consideration on 13.03.2019.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

4
Dr. Nagin Nanda, EM

December 19, 2018

A

Original Application No. 850/2018





Punjab Pollution Control Board

Zonal office, Near PSIEC, Water Tank, Focal Point, Jalandhar

Phone No. 0181-2601612

www.ppcb.gov.in Email ID – seezojal.ppcb@punjab.gov.in

ANNEXURE R-10

No. 524

Date 1/3/2019

To

M/s Kuantam Papers Ltd.,
Village Saila Khurd, Tehsil Garhshankar,
Distt Hoshiarpur.

Subject: Notice to issue directions u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988.

Whereas, it is mandatory on the part of industry to obtain the 'consent to operate' of the Board under Water (Prevention & Control of Pollution) Act, 1974 for discharge of effluent from its industrial premises and to operate an industrial plant.

And whereas it is also mandatory on the part of industry to install proper and adequate pollution control devices so that the concentration of various pollutants conforms to the effluents standards prescribed by the Board.

And whereas, the industry is a large scale unit engaged in manufacturing of writing paper having installed capacity of 450 MTD. The industry has valid consent to operate under Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 which are valid upto 31.03.2019. The industry is manufacturing Writing and Printing Paper @450 Metric Tonnes/Day and CO-generation Power @17.5 Metric Tonnes/Day from raw material Sarkanda, Kahi, Wheat Straw, Wood Chips, Bamboo, Wood, Vineer Waste and other agrorsidues @1000 Metric Tonnes/Day Purchased Wood Pulp, Waste Paper etc (AD) @155 Metric Tonnes/Day Caustic Lye (White Liquor) (BD) @75 Metric Tonnes/Day Chlorine, Lime (For bleaching and CRP) @55 Metric Tonnes/Day Fillers and Other misc process chemicals @120 Metric Tonnes/Day Coal and/or Husk @650 Metric Tonnes/Day. The industry has also installed on ethanol manufacturing unit in the same premises and has obtained consent to operate under Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 for manufacturing Ethanol @ 0.7 Kilo Liters/day from the raw material Rice Straw @ 3 Metric Ton/day for the period 04.12.2018. The industry is discharging treated trade effluent @ 17000 KLD and domestic effluent 114 KLD. The industry has provided 2085 acres land within and outside the premises of industry for the utilization of treated effluent.

And whereas, the industry has installed 3 no. boilers, out of which two no. boilers are of 26TPH steam generation capacity and one is in operation and other 2nd Act as stand by boiler and one boiler of 60 TPH. And there is one recovery boiler of 20 TPH. All the boilers have their individual ESP's as APCD. Two boilers of 26 TPH capacity are connected with common stack and one boiler of 60 TPH has separate stack. The continuous real time online stack emission monitoring system is installed with stack attached with 2 No. boilers of 26TPH and one boiler of 60 TPH stack.

And whereas, a complaint was received from Sh. Parwinder Singh Kitna, Nawanshahr, Sh. Ranjit Singh Kalsi, Advocate, Lakhvir Singh Rana, Dansival regarding the air pollution and water pollution created by M/S Kuantam Papers Ltd, Saila Khurd, Tehsil Garhshankar, Hoshiarpur. Accordingly, the AEE of Regional Office, Hoshiarpur visited the industry on 27.05.2018 and carried out the monitoring of ETP and effluent samples were collected and as per sample analysis report received from Head Office lab,

Patnala endst no. 16778-79 dated 08.06.2018. The details of various parameters are given below:-

Sr. no	Parameters	Results of Final outlet of ETP	Aeration Tank	Pipeline outlet sample located near the tubewell Sh. Satnam S/o Singh	Sh. Singh Sohan	Prescribed Standards
1.	pH	7.76	-	7.63		7.0 -8.5
2.	TSS (mg/l)	38	-	92		500
3.	COD (mg/l)	205	-	232		350
4.	BOD (mg/l)	26	-	34		30
5.	Sodium Absorption Ration (SAR) (mg/l)	5.96	-	5.72		26
6.	Mix Liquid Suspended Solids (mg/l)	-	6290	-		-

The analysis reveals that the parameters are meeting with the prescribed standards for such type of industries.

And whereas, as the industry has installed real time online monitoring system at the outlet of ETP and which is connected with website of the CPCB and the CPCB has sent mail for the alerts against the industry through mail regarding over stepping / over shooting of parameters such as BOD, TSS etc. For the violations of not meeting with the effluent standards, the industry was given the personal hearing before the Worth Chairman of the Board on 18.09.2018 u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988 and following decisions were taken:-

- 1) The Chief Environmental Engineer, Jalandhar shall co-ordinate the visit of PBTI to the industry within 07 days and PBTI shall collect and analysis the treated trade effluent sample and submit report to the Punjab Pollution Control Board.
- 2) The Chief Environmental Engineer, Jalandhar shall visit the industry & asses the adequacy of pollution control measures/ disposal arrangements made by the industry & shall submit report/ recommendations before next date of hearing.
- 3) The further action will be taken out after receipt of the report.

And whereas, accordingly, the industry was visited on 15.11.2018 by team of officers comprising of the following officers:-

- 1) Er. G.S. Majathia, Chief Environmental Engineer, Punjab Pollution Control Board, Jalandhar.
- 2) Er. Harbir Singh, Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office, Jalandhar.
- 3) Er. Ashok Kumar Sharma, Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur.
- 4) Sh. Sandeep Gupta, Asstt. Scientific Officer, Zonal Lab, Jalandhar.
- 5) Er. Pooja Sharma, Asstt. Environmental Engineer, Punjab Pollution Control Board, Regional Office, Jalandhar.
- 6) Sh. Amit representative of PBTI, Mohali.

And whereas, the industry was in operation during visit. The team visited the ETP and found to be in operation and the treated effluent was being discharged onto land for irrigation outside the premises. The team also checked the online monitoring system, and found then in operation and readings were observed, as for pH-7.49, COD-211, BOD-219, TSS-30.6. The flow rate of the pipe line carrying treated trade effluent to various villages for irrigation were onto land & details one as below was observed (1) 69 m³/hr at vill. (gandhowal) (2) 71m³/hr at vill.(old pansera) (3) 247 m³/hr at vill Jeevanpur

Jattan (4) 100m³/hr at vill (Nariala) (5) 225 m³/hr at vill (New Pansera) (6) 198m³/hr at vill (Saila Kalan).

And whereas, the representative of PBTI accompanying the team, collected treated effluent sample from outlet of ETP and 3 no. sample of aeration tanks for MLSS. The industry has installed 12 no. tubewells for the extraction & water out & which 9 no. tubewells were in operation & readings of the same has been noted by the team.

The team visited the area of village Saila Kalan & Pensra where treated effluent of the industry is utilized onto land for irrigation purpose. At one of the area in saila Kalan Agriculture field treated effluent was being discharged into a field having low lying area, where effluent of the industry seems to be accumulated and the effluent sample was collected by the team. Thereafter, the team visited the agriculture fields of village Pensra and found that effluent was being discharged onto field where eucalyptus trees have been planted. Some localized pits were noted along the fields, but it could not be ascertained as to how these pits were created. However, farmers told that the sarkanda is being uprooted which resulted in the pits formation.

And whereas, the industry has submitted the record for the writing and printing paper production for the month of August, 2018 to 15th November, 2018, flow meter reading for the month of August 2018 to 14th November 2018, details of ETP flow chart, details of water recirculation, irrigation management plan, ETP chemical consumption record, ground water analysis report, piezometer water sampling report, water balance statement.

The analysis results of the effluent sample collected by the team on 15/11/2018 and analyzed by the PBTI, lab has been received. The details are given as below:-

Sr. no.	Location of the sampling point		Results	Prescribed limits
	Outlet of ETP	pH	7.91 mg/l	7.0 to 8.5
		Total Suspended Solids (TSS)	149 mg/l	500
		Biochemical Oxygen Demand (BOD ₃ at 27°C)	82 mg/l	30
		Chemical Oxygen Demand (COD) Total	612 mg/l	350
		Sodium Adsorption Ratio	6.1 mg/l	25
		AOX (Adsorbable Organic Haides)	22 mg/l	-
	Aeration Tank No.1	MLSS	2230 mg/l	----
	Aeration Tank No.2	MLSS	6780mg/l	-----
	Aeration Tank No.3	MLSS	1030 mg/l/t	---
	From land of Manjit Singh, Village Saila Kalan where effluent was found stagnated in the low lying area.	pH	7.91 mg/l	7.0 to 8.5
		Total Suspended Solids (TSS)	458 mg/l	500
		Biochemical Oxygen Demand (BOD ₃ at 27°C)	243 mg/l	30
		Chemical Oxygen Demand (COD) Total	1429 mg/l	350
		Sodium Adsorption Ratio	4.2 mg/l	25
		AOX (Adsorbable Organic Haides)	23.5 mg/l	-

And whereas, the analysis results of the effluent sample collected from the outlet of the ETP reveals that the BOD in the treated effluent is 82 mg/lit. and COD 612 mg/lit. which show that the ETP is not adequate to treat the effluent such that it meets the prescribed norms. Similarly, the sample collected from the fields of Sh. Manjit Singh (Saila Kalan) the effluent was stagnated low lying area reveals that BOD - 243 mg/lit. and COD - 1429 mg/lit, which are beyond the prescribed limits and it is felt that untreated waste water is discharged onto land for irrigation purpose. The industry has installed online monitoring system for parameters pH, TSS, TDS, BOD & COD in its ETP and regularly alerts of CPCB are received through email in which the incidents of yellow alert of various parameters going beyond the prescribed limits has been noticed.

And whereas, the industry is violating various provisions of the Water Act (Prevention & Control of Pollution) Act, 1974 and is operating the unit without consent to operate of the Board.

And whereas the matter has been considered by the Competent Authority and it has been decided to give hearing u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 to industry.

Now, therefore, Punjab Pollution Control Board in exercise of the powers conferred upon it u/s 33-A of the Water (Prevention & control of Pollution) Act, 1974 as amended in 1988, proposes to issue following directions:

1. That the industry will dismantle and remove all outlets and stop forthwith discharging its trade effluent onto land for stagnation or through any other mode.
2. That the industry will not restart any process unless all necessary water pollution control measures are taken and concentration of various pollutants in its treated trade effluent conforms to the effluent standards laid down by the Board for such discharges.
3. That the industry is violating under the Water Act 1974 and will not restart discharging effluent until it obtains the consent of the Board u/s 25/26 of the Water (Prevention & control of Pollution) Act, 1974 as amended in 1988.
4. That Punjab State Electricity Board authority will be directed to disconnect the supply of electricity available to project proponent.

You are, hereby, given an opportunity of personal hearing to file objections, if any, on the proposed directions before the Chairman of the Board on 05/02/2019 at 12:00 O'clock Noon in his office at Head office, Punjab Pollution Control Board, Nabha Road, Patiala, personally to explain the position, failing which the proposed directions shall be confirmed without giving any further notice/ opportunity.

Savit
11/2/19
For Sr. Environmental Engineer
Dated. _____

Endst. No. _____

A copy of the above is forwarded to the Environmental Engineer, Regional Office, Punjab Pollution Control Board, Hoshiarpur for information and you are requested to inform the industry well before the date of hearing.

- sd -
For Sr. Environmental Engineer

ANNEXURE R-11



Punjab Pollution Control Board

Zonal office, Near PSIEC, Water Tank, Focal Point, Jalandhar

Phone No. 0181-2601612

www.ppcb.gov.in Email ID – seezojal.ppcb@punjab.gov.in

No 962

Date 22/2/19

To

M/s Kuantam Papers Ltd.,
Village Saila Khurd, Tehsil Garhshankar,
Distt Hoshiarpur.

Subject: Proceedings of the personal hearing before Worthy Chairman of the Board on 05/02/2019 at Head office Patiala u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988.

Following were Present:-

On behalf of the Board:-

- 1) Er. G.S Majithia, CEE (Jalandhar)
- 2) Er. Harbir Singh, SEE, Zonal office Jalandhar.

On behalf of industry:-

Sh. Manoj Aggarwal (Vice President).

The officer of the Board brought out that the industry is a large scale unit engaged in manufacturing of writing paper having installed capacity of 450 MTD. The industry has valid consent to operate under Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 which are valid upto 31.03.2019. The industry is manufacturing Writing and Printing Paper @450 Metric Tonnes/Day and CO-generation Power @17.5 Metric Tonnes/Day from raw material Sarkanda, Kahi, Wheat Straw, Wood Chips, Bamboo, Wood, Vineer Waste and other agrorsidues @1000 Metric Tonnes/Day Purchased Wood Pulp, Waste Paper etc (AD) @155 Metric Tonnes/Day Caustic Lye (White Liquor) (BD) @75 Metric Tonnes/Day Chlorine, Lime (For bleaching and CRP) @55 Metric Tonnes/Day Fillers and Other misc process chemicals @120 Metric Tonnes/Day Coal and/or Husk @650 Metric Tonnes/Day. The industry has also installed on ethanol manufacturing unit in the same premises and has obtained consent to operate under Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 for manufacturing Ethanol @ 0.7 Kilo Liters/day from the raw material Rice Straw @ 3 Metric Ton/day for the period 04.12.2018. The industry is discharging treated trade effluent @ 17000 KLD and domestic effluent 114 KLD. The industry has provided 2085 acres land within and outside the premises of industry for the utilization of treated effluent. The industry has installed 3 no. boilers, out of which two no. boilers are of 26TPH steam generation capacity and one is in operation and other 2nd Act as stand by boiler and one boiler of 60 TPH. And there is one recovery boiler of 20 TPH. All the boilers have their individual ESP's as APCD. Two boilers of 26 TPH capacity are connected with common stack and one boiler of 60 TPH has separate stack. The continuous real time online stack emission monitoring system is installed with stack attached with 2 No. boilers of 26TPH and one boiler of 60 TPH stack. The ash from the boiler section is disposed through land filling as informed by representative. The unit representative informed that 10 % of the ash is used in brick manufacturing plant installed within the premises. During the visit, ash was found lying alongside the roads near plantation area. A complaint was received from Sh. Parwinder Singh Kitria, Nawanshahr, Sh. Ranjit Singh Kalsi, Advocate, Lakhvir Singh Rana, Dansiwal regarding the air pollution and water pollution created by M/S Kuantum Papers Ltd, Saila Khurd, Tehsil Garhshankar, Hoshiarpur. Accordingly, the AEE of Regional Office, Hoshiarpur visited the industry on 27.05.2018 and carried out the monitoring of ETP and effluent samples wer collected and as per sample analysis report received from Head Office lab, Patiala endst no. 16778-79 dated 08.06.2018. The details of various parameters are given below:-

M/s Kuantam Papers Ltd., Village Salla Khurd, Tehsil Garhshankar, Distt Hoshiarpur

Sr. no	Parameters	Results of Final outlet of ETP	Aeration Tank	Pipeline outlet sample located near the tubewell Sh. Satnam Singh S/o Sohan Singh	Prescribed Standards
1.	pH	7.76	-	7.63	7.0 -8.5
2.	TSS (mg/l)	38	-	92	500
3.	COD (mg/l)	205	-	232	350
4.	BOD (mg/l)	26	-	34	30
5.	Sodium Absorption Ration (SAR) (mg/l)	5.96	-	5.72	25
6.	Mix Liquid Suspended Solids (mg/l)	-	6290	-	-

The analysis reveals that the parameters are meeting with the prescribed standards for such type of industries.

As the industry has installed real time online monitoring system at the outlet of ETP and which is connected with website of the CPCB and the CPCB has sent mail for the alerts against the industry through mail regarding over stepping / over shooting of parameters such as BOD, TSS etc. For the violations of not meeting with the effluent standards, the industry was given the personal hearing before the Worth Chairman of the Board on 18.09.2018 u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988 and following decisions were taken:-

- 1) The Chief Environmental Engineer, Jalandhar shall co-ordinate the visit of PBTI to the industry within 07 days and PBTI shall collect and analysis the treated trade effluent sample and submit report to the Punjab Pollution Control Board.
- 2) The Chief Environmental Engineer, Jalandhar shall visit the industry & asses the adequacy of pollution control measures/ disposal arrangements made by the industry & shall submit report/ recommendations before next date of hearing.
- 3) The further action will be taken out after receipt of the report.

Accordingly, the industry was visited on 15.11.2018 by team of officers comprising of the following officers:-

- 1) Er. G.S. Majathia, Chief Environmental Engineer, Punjab Pollution Control Board, Jalandhar.
- 2) Er. Harbir Singh, Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office, Jalandhar.
- 3) Er. Ashok Kumar Sharma, Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur.
- 4) Sh. Sandeep Gupta, Asstt. Scientific Officer, Zonal Lab, Jalandhar.
- 5) Er. Pooja Sharma, Asstt. Environmental Engineer, Punjab Pollution Control Board, Regional Office, Jalandhar.
- 6) Sh. Amit representative of PBTI, Mohali.

The industry was in operation during visit. The team visited the ETP and found that the waste water is generated from different section of process and the unit has 3 streams of waste water i.e. effluent from paper machine, pulp mill, waste paper street (Stream -I), Wet washing effluent of Agro raw material(Stream -II). and black liquor (Stream-III)- The ETP for the treatment of stream-I effluent comprises of primary clarifier- aeration tank (3

Nos)- Secondary clarifier- Tertiary clarifier- irrigation. The ETP for the treatment of Stream-II effluent comprises of Clarifier-Bio clarifier-Bio Digester filter- feed to primary clarifier of stream-I ETP. For stream-III (black liquor), it has two chemical recovery units (CRP) for the management of black liquor. The conventional CRP is installed for the treatment of black liquor generated from agro based production and the fluidized bed reactor (FBR) is installed for the treatment of black liquor generated from wood based production. The black liquor is concentrated in multiple effect evaporators (MEE) and

M/s Kuantam Papers Ltd., Village Salla Khurd, Tehsil: Garhshankar, Distt: Hoshiarpur

then the concentrated black liquor / heavy black liquor is sprayed into recovery boiler or incinerator. The FBR soda ash is produced in the form of granules is collected and packed in bags. The ETP was found to be in operation and the treated effluent was being discharged onto land for irrigation outside the premises. **The team also checked the online monitoring system, and found then in operation and readings were observed, as for pH-7.49, COD-211, BOD-219, TSS-30.6.** The flow rate of the pipe line carrying treated trade effluent to various villages for irrigation were onto land & details one as below was observed (1) 69 m³/hr at vill (gandhowal) (2) 71m³/hr at vill(old pansera) (3) 247 m³/hr at vill Jeevanpur Jattan (4) 100m³/hr at vill (Nariala) (5) 225 m³/hr at vill (New Pansera) (6) 198m³/hr at vill (Salla Kalan). The representative of PBTI accompanying the team, collected treated effluent sample from outlet of ETP and 3 no. sample of aeration tanks for MLSS. The industry has installed 12 no. tubewells for the extraction & water out & which 9 no. tubewells were in operation & readings of the same has been noted by the team. The team visited the area of village Salla Kalan & Pensra where treated effluent of the industry is utilized onto land for irrigation purpose. At one of the area in salla Kalan Agriculture field treated effluent was being discharged into a field having low lying area, where effluent of the industry seems to be accumulated and the effluent sample was collected by the team. Thereafter, the team visited the agriculture fields of village Pensra and found that effluent was being discharged onto field where eucalyptus trees have been planted. Some localized pits were noted along the fields, but it could not be ascertained as to how these pits were created.

However, farmers told that the sarkanda is being uprooted which resulted in the pits formation. The industry has submitted the record for the writing and printing paper production for the month of August, 2018 to 15th November, 2018, flow meter reading for the month of August 2018 to 14th November 2018, details of ETP flow chart, details of water recirculation, irrigation management plan, ETP chemical consumption record, ground water analysis report, piezometer water sampling report, water balance statement.

The analysis results of the effluent sample collected by the team on 15/11/2018 and analyzed by the PBTI, lab has been received. The details are given as below:-

Sr. no.	Location of the sampling point	Results	Prescribed limits	
	Outlet of ETP	pH	7.91 mg/l	7.0 to 8.5
		Total Suspended Solids (TSS)	149 mg/l	500
		Biochemical Oxygen Demand (BOD ₃ at 27°C)	82 mg/l	30
		Chemical Oxygen Demand (COD) Total	612 mg/l	350
		Sodium Adsorption Ratio	6.1 mg/l	25
		Absorbable Organic Halogens (AOX)	22 mg/l	1.5 Kg/Ton of product.
	Aeration Tank No.1	MLSS	2230 mg/l	
	Aeration Tank No.2	MLSS	6780mg/l	
	Aeration Tank No.3	MLSS	1030.mg/lt.	
	From land of Manjit Singh, Village Salla Kalan where effluent was found stagnated in the low lying area.	pH	7.91 mg/l	7.0 to 8.5
		Total Suspended Solids (TSS)	458 mg/l	500
		Biochemical Oxygen Demand (BOD ₃ at 27°C)	243 mg/l	30
		Chemical Oxygen Demand (COD) Total	1429 mg/l	350
		Sodium Adsorption Ratio	4.2 mg/l	25
		Absorbable Organic Halogens (AOX)	23.5 mg/l	1.5 Kg/Ton of product.

The analysis results of the effluent sample collected from the outlet of the ETP reveals that the BOD is 82 mg/l, COD is 612 mg/l, TSS is 149 mg/l, pH is 7.49, Sodium Adsorption Ratio is 6.1 mg/l, and Absorbable Organic Halogens (AOX) is 22 mg/l.

which show that the ETP is not adequate to treat the effluent such that it meets the prescribed norms. Similarly, the sample collected from the fields of Sh. Manjit Singh (Saila Kalan) the effluent was stagnated low lying area reveals that BOD - 243 mg/lit. and COD - 1429 mg/lit, which are beyond the prescribed limits and it is felt that untreated waste water is discharged onto land for irrigation purpose. The industry has installed online monitoring system for parameters pH, TSS, TDS, BOD & COD in its ETP and regularly alerts of CPCB are received through email in which the incidents of yellow alert of various parameters going beyond the prescribed limits has been noticed. The industry is violating various provisions of the Water Act (Prevention & Control of Pollution) Act, 1974 and is operating the unit without consent to operate of the Board. So, accordingly for above violations the industry has been issued notice u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 with an opportunity of personal hearing before Worthy Chairman of the Board.

The representative of the industry submitted written reply during the hearing and stated that industry has installed adequate effluent treatment plant consisting of bio clarifier followed by anaerobic biological treatment system (UASB) for anaerobic treatment of effluent generated from washing of raw material. Thereafter, the treated effluent is further treated in to aerobic biological treatment system (ASP-3), followed by secondary clarifier & tertiary clarifier. The effluents generated from machine section and pulp mill are imparted primary treatment through primary clarifier of capacity 5100m³ having adequate hydraulic retention time. Primary treated effluent is further treated into two aeration tanks each of capacity 6600m³ and 4050m³ known as ASP-1 and ASP-2, respectively. The effluent of aeration tanks is clarified into secondary clarifier of capacity 5100m³. The effluent after secondary clarifier is further treated into tertiary clarifier. The final treated effluent of the industry is utilized for irrigation of the fields of farmers of nearby twelve villages having an area about 2000 acres of nearby villages. For supplying treated effluent for irrigation to the farmers, we have installed electromagnetic flow meter for measurement of flow towards the irrigation fields and for distribution of treated water to the farmers, we have laid leak proof underground pipeline network. As far as the complaint made by Sh. Parminder Singh Kitna, Nawanshahar, Sh. Ranjit Singh Kalsi advocate and Lakhvir Singh Rana Dansival, is concerned, it is mentioned here that these persons have no land in nearby villages where the treated effluent of the industry is utilized for irrigation. These persons have their self interest and grudge with the industry which are best known to them. Whereas, the industry is discharging its treated effluent and air emission as per the norms prescribed by Punjab Pollution Control Board. Also, the industry is getting analyzing the quality of the soil from Department of Soil Sciences twice in a year and the analysis results indicate that the values of pH, Salt content, Organic Carbon, Available phosphorus and Available potash have been found varying between 7.2 - 8.0, 0.25 - 0.35 millimhos/cm, 0.18 - 0.73 %, 5.2 - 8.6 Kg/Acre and 49.6 - 54.7 Kg/Acre, respectively, which are within the permissible limits of 6.5 - 8.7, less than 0.8 millimhos/cm, 0.4 - 0.75 %; more than 5.0 - 9.0 Kg/Acre and 55 Kg/Acre, respectively, for soil health.

The industry has further informed that the industry is also getting analyze the quality of the ground water every year from reputed laboratory approved by Punjab Pollution Control Board. As per the analysis results, the parameters in the ground water have been observed as pH= 7.26 - 7.47, TDS = 160 - 404 mg/l, alkalinity = 130 - 191 mg/l, chloride = 21 - 34 mg/l, calcium = 55 - 65 mg/l, magnesium = 3.8 - 14.0 mg/l and total hardness = 178 - 196 mg/l which are within the permissible limits of 6.5 - 8.5, 500 mg/l, 200 mg/l, 250 mg/l, 75 mg/l, 30 mg/l and 200 mg/l, respectively. Regarding the inspection made by officers of Punjab Pollution Control Board on 15.11.2018 and sample collected by them and analyzed by the laboratory, it is submitted that the values of BOD and COD at the outlet of the ETP mentioned as 82mg/l and 612mg/l are shocking because the values of these parameters at the outlet of the ETP are always within the permissible limits of 30 and 250mg/l respectively. Regarding SMS alerts indicating the variation in values of COD & TSS have been noted, which might be due to sticking of some foreign particle on the electrode of the online monitoring system or due to heavy rain in the area or some technical fault in the instrument and the same was for very few seconds and there after the values of the parameters regained its normal value. In order to ensure effective functioning of online monitoring system, we are

M/s Kuantam Papers Ltd., Village Salla Khurd, Tehsil Garhshankar, Distt Hoshiarpur

calibrating the system by our own IT department from time to time. We shall also engage the services of ERRAND ENTERPRISE PVT. LTD, New Delhi for calibration of online monitoring system and calibration report shall be submitted by the end of February - 2019. Besides taking effective measures by the industry, we also proposed following short term measures and long term measures for further improvement in the quality of the environment.

Short Term Measures

- i) We shall engage CPPRI Saharanpur for the audit treatment system including soda recovery plant and ground water. The report shall be submitted by end of February - 2019.
- ii) We shall engage the services of department of soil conservation for approval of the Irrigation Management Plan and report in this regard shall be submitted by February-2019.

Long Term Measures

- i) Commissioning of ECF bleaching for reduction in the use of chlorine and reduction in effluent load by March 2019, trials for which already started 2-3 months ago.
- ii) Commissioning of new soda recovery plant of 500 TPD dry black liquor solids by June - 2020.

After hearing, the officer of the Board and representative of the industry, the Chairman of the Board decided that:-

- 1) The industry shall engage CPPRI, Saharanpur and get its existing ETP and chemical recovery plant audited and a proposal be prepared for up-gradation required in exiting ETP and chemical recovery plant, so as to meet the effluent standards as prescribed under the law and the report be submitted to the PPCB within 21-days.
- 2) The industry shall prepare an Irrigation Management Plan from a consultant of good repute for the whole of the command area available within the industry and outside the industry where treated effluent of the industry is utilized onto land for irrigation purpose within 15 days and thereafter get it verified and approved from the Department of Soil & Water Conservation, Punjab and submit the same to the Punjab Pollution Control Board within 21 days.
- 3) The industry shall get the ground water study of the whole command area where the treated effluent is utilized onto land for irrigation purpose from any expert institute in the field of Hydrogeology and submit report to Punjab Pollution Control Board within 21 days.
- 4) The industry shall prepare a Standard Operating Procedure (SOP) for the operation of ETP and Chemical Recovery Plant (CRP) and shall maintain the record of operation of ETP on daily basis and shall submit monthly record duly verified by the Designated Authority of the industry to the Punjab Pollution Control Board.
- 5) The industry shall obtain the permission / NOC from Central Ground Water Authority (CGWA) regarding abstraction of fresh water from all the existing tube-wells in the industry.
- 6) The industry shall install electromagnetic flow meter at the inlet of the ETP before the equalization tank within 21-days.
- 7) The industry shall commission the Elemental Chlorine Free bleaching (ECF) in the agro based production by 31-03-2019.
- 8) The industry shall install and commission a new soda recovery plant of 500 TPD capacity dry black liquor solids by 31/03/2020.


For Sr. Environmental Engineer

Endst. No.....

dated.....

A copy of the above is forwarded to Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur for information and necessary action as per the above decision.

ANNEXURE R-12

February 6, 2019

The Environmental Engineer
Punjab Pollution Control Board (PPCB)
Focal Point
Hoshiarpur

Subject: Notice to issue Directions under 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988

Reference: PPCB Letter No. 524 dated 01/02/2019 received on 04/02/2019

Sir,

This is in continuation to this office letter dated 05.02.2019 submitted to chairman office, Patiala. Further clarifications w.r.t points raised in the notice under 33-A of the water act 1974 is submitted as under

The last paragraph of the Page 2 of the Notice says that "the readings observed for real time monitoring system were: pH 7.49, COD: 211, BOD: 219, TSS: 30.6. The value for BOD reported as 219 mg/l is not correct and seems to be typographical error at PPCB's end. It should be 21.9 mg/l and we request that records may pls be reviewed and corrected.

With regard to the results of analysis of the treated effluent samples collected by the team and analysis done at PBTI, we have some technical observations and would request you to kindly look into these before concluding anything regarding adequacy and efficiency of our Effluent Treatment Plant (ETP) based on the results reported w.r.t BOD and COD.

- During visit of the PPCB team, it was explained to the team that we are in the process of commissioning our Chlorine Dioxide plant for replacement of chlorine with ClO₂ in the pulp bleaching process. Therefore, we have to use higher dose of Hydrogen Peroxide (another environmental friendly bleaching

chemical) during stabilization of ClO₂ plant so as to commission chlorine dioxide bleaching as per prescribed parameters without using elemental chlorine and hence in view of this, the residual peroxide in the pulp mill effluent might be on much higher side than normal concentration.

- From the analysis, it seems that since the method of overcoming the interference of hydrogen Peroxide on analysis of COD is not mentioned in APHA Standard Methods for the Examination of Water and Wastewater, and might not have been addressed by the analyst while performing analysis of COD in the samples due to lack of information with him about the current bleaching process being followed in our mill. The analysis of COD is affected by interferences from various inorganic substances based on the source of waste water samples and removing this interference for correct analysis of the COD is an essential part of the approved standard analytical method. If it is not performed in the standard COD test, the reaction of the residual hydrogen peroxide with the potassium dichromate reagent, will result in a "false high" COD value, which is a well established fact and addressed by analysts worldwide while analyzing COD in such samples.
- Similarly, in the method for BOD analysis, residual hydrogen peroxide has also its interference in the analysis. Hydrogen peroxide decomposes residual slowly degradable organic matter in treated effluent during analysis converting into simpler easily biodegradable compound i.e. measurable BOD, leading to higher BOD₃/BOD₅ values than the actual values. It is mentioned here that during 3 days/5 days incubation period in the effluents containing residual H₂O₂, the residual organics are converted to easily biochemically oxidizable compound reflecting as measurable BOD, the analytical BOD₃/BOD₅ value goes up.

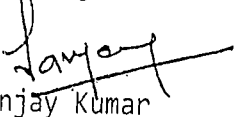
Therefore, it is extremely essential to remove the interference of residual hydrogen peroxide to have the correct values of COD and BOD. Further, since real time monitoring system works on entirely different principle and is not affected by these interferences, the values reported in the real time online monitoring system are within the same range as earlier.

We would like to submit that this is temporary phase and commissioning of our Chlorine Dioxide Plant will be completed by March, 2019. The higher values of COD and BOD in the analysis report are a result of analytical error due to interference of residual hydrogen peroxide which was removed during analysis.

- With regard to Yellow alerts generated by CPCB w.r.t online monitoring system, it is submitted that online monitoring system have been installed for as a part of self-monitoring mechanism by the Industry and, pas per "CPCB's Framework for regulatory use of continuous real time effluent quality & air emission monitoring data", yellow alert is the first level alert (which is followed by orange, red and purple), wherein no action is required by the Regulator and the Industry has to take corrective actions including Investigating & recording the apparent cause of the deviation and corrective action taken, Recording the observations on the influent characteristics during the past 24 hours, Check the Internet / Power connectivity /Sensor defect of the equipment and restore it accordingly. The timely corrective actions were taken by our mill on yellow alerts and reported to both PPCB & CPCB
- We are not discharging any effluent for stagnation inside or outside the premises and the pits observed by the team were due to uprooting of Sarkanda by the farmers and no stagnation caused by our mill.

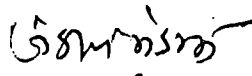
In view of the above; It is requested that above clarifications may kindly be looked into purely on technical grounds to conclude regarding analysis results & adequacy of our treatment plant and the notice issued to us may kindly be withdrawn. We may also be allowed to get re-sampling after commissioning of our chlorine dioxide plant in the month of April 2019

With Regards


Sanjay Kumar
General Manager (Process QC)

CC- A copy of above is forwarded to Chief Environmental Engineer, Focal Point Jalandhar for kind information & necessary action please

Sanjay Kumar
General Manager (Process QC)


6/2/19

To,

The Chairman,
Punjab Pollution Control Board,
Nabha Road,
Patiala.

Subject – Notice to issue directions u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988.

Reference: your office letter No. 524 dated 1.2.2019

With regard to subject cited notice, the pointwise reply is submitted as under-

1. Our industry is operating with valid consents to operate under the provisions of the Water Act, 1974 and Air Act, 1981 which are valid up to 31.3.2019. Copies of the consent letters are enclosed as per **Annexures – 1 & 2**
2. We have installed adequate effluent treatment plant consisting of bio clarifier followed by anaerobic biological treatment system (UASB) for anaerobic treatment of effluent generated from washing of raw material. Thereafter, the treated effluent is further treated in to aerobic biological treatment system (ASP-3), followed by secondary clarifier & tertiary clarifier.
3. The effluents generated from machine section and pulp mill are imparted primary treatment through primary clarifier of capacity 5100m³ having adequate hydraulic retention time. The treatment efficiency in terms of removal of COD, BOD & TSS is 49.0, 70.0 & 90.8%, respectively. Moreover, the underflow generated from primary clarifier is dewatered through state of the art technology i.e. screw presses which dewater the sludge to its consistency to 44% and it further reduces the level of TSS & COD at the outlet of primary clarifier. As such, primary clarifier is quite effective and adequate.
4. Primary treated effluent is further treated into two aeration tanks each of capacity 6600m³ and 4050m³ known as ASP-1 and ASP-2, respectively. The effluent of aeration tanks is clarified into secondary clarifier of capacity 5100m³ having adequate hydraulic retention time. Effluent treatment flow chart is enclosed as per **Annexure – 3**.

5. The effluent after secondary clarifier is further treated into tertiary clarifier. The final treated effluent of the industry is utilized for irrigation of the fields of farmers of nearby twelve villages having an area about 2000 acres of nearby villages. For supplying treated effluent for irrigation to the farmers, we have installed electromagnetic flow meter for measurement of flow towards the irrigation fields and for distribution of treated water to the farmers, we have laid leak proof underground pipeline network. Besides, the industry has its own land measuring about 110 acres and 85 acres of nearby farmers, where the treated effluent is utilized for plantation. Irrigation plan is enclosed herewith. Irrigation Management Plan and irrigation network are enclosed as per **Annexures – 4 & 5.**
6. The analysis profile of the treated effluent samples of the industry which were collected by Punjab Pollution Control Board indicate that the values of BOD, COD, TSS, AOX and pH are within the prescribed limits of the Board. The copies of the results are enclosed herewith. Further the treated effluent sample was also analyzed by Sophisticated Analytical Instruments Laboratories Society, Thapar Technology campus Patiala and analysis results are within the permissible limits. Copy of the analysis report of treated effluent conducted by Punjab Pollution Control Board is enclosed as per **Annexures – 6 to 9.** The copy of analysis report of Sophisticated Analytical Instruments Laboratories Society, Thapar Technology campus Patiala is enclosed as per **Annexure – 10.**
7. As far as the complaint made by Sh. Parminder Singh Kitna, Nawanshahar, Sh. Ranjit singh kalsi advocate and Lakhvir singh rana Dansiwal, is concerned, it is mentioned here that these persons have no land in nearby villages where the treated effluent of the industry is utilized for irrigation. These persons have their self interest and grudge with the industry which are best known to them. Whereas, the industry is discharging its treated effluent and air emission as per the norms prescribed by Punjab Pollution Control Board.

Also, the industry is getting analyzing the quality of the soil from Department of Soil Sciences twice in a year and the analysis results indicate that the values of pH, Salt

content, Organic Carbon, Available phosphorus and Available potash have been found varying between 7.2 -8.0, 0.25 – 0.35 millimhos/cm, 0.18 – 0.73 %, 5.2 – 8.6 Kg/Acre and 49.6 – 54.7 Kg/Acre, respectively, which are within the permissible limits of 6.5 – 8.7, less than 0.8 millimhos/cm, 0.4 – 0.75 %, more than 5.0 – 9.0 3 Kg/Acre and 55 Kg/Acre, respectively, for soil health.

The industry is also getting analyze the quality of the ground water every year from reputed laboratory approved by Punjab Pollution Control Board. As per the analysis results, the parameters in the ground water have been observed as pH= 7.26 – 7.47, TDS = 160 – 404 mg/l, alkalinity = 130 – 191 mg/l, chloride = 21 – 34 mg/l, calcium = 55 – 65 mg/l, magnesium = 3.8 – 14.0 mg/l and total hardness= 178 - 196 mg/l which are within the permissible limits of 6.5 – 8.5, 500 mg/l, 200 mg/l, 250 mg/l, 75 mg/l, 30 mg/l and 200 mg/l, respectively. The values of heavy metals either are within the permissible limits or not detectable in these ground water samples. Besides, no bacterial contamination or pesticides residues have been found in these drinking water samples. Copy of the analysis results ground water is enclosed as per Annexure – 11.

The literature study has been carried out to know the ill effects of effluent discharge from pulp and paper mill on human beings. The study indicates that no chronic dangerous diseases like cancer, asthma, chronic obstructive pulmonary disease and hepatitis C is caused due to the use of treated wastewater of pulp and paper mill effluent for irrigation. The industry at its own has also collected data from nearby Government hospitals/ dispensaries with regard to death of persons due to cancer and other dangerous diseases. It has been reported by the Senior Medical Officers of these hospitals that no death occurred during the last 3 years due to the diseases like Cancer, Hepatitis, Cholera and Typhoid in their hospitals.

8. Regarding the inspection made by officers of Punjab Pollution Control Board on 15.11.2018 and sample collected by them and analyzed by the laboratory, it is

submitted that the values of BOD and COD at the outlet of the ETP mentioned as 82mg/l and 612mg/l are shocking because the values of these parameters at the outlet of the ETP are always within the permissible limits of 30 and 250mg/l respectively. The necessary analysis results of the various treated effluent sample collected by PPCB, indicating all the parameters are within the permissible limits, have already been enclosed in aforesaid para. Similarly, as per analysis results, the values of TSS, BOD and COD in the effluent sample collected from the land of Manjit Singh Village Saila Kalan, have been mentioned as 458, 243 & 1429mg/l, respectively, which are also not acceptable because the values of these parameters at the outlet of the primary clarifier are always remain within the range of 150 – 200mg/l, 450 – 550mg/l and 1200 – 1800mg/l, respectively, which are further reduced by treating the effluent biologically in three aeration tanks followed by secondary clarifier and tertiary clarifier. Thus, at the outlet of the tertiary clarifier, all the parameters have been found within the permissible limits of 50, 30 & 250mg/l, respectively.

As mentioned in aforesaid para, we have in house state of the art laboratory, recognized by Govt. of India, where we are conducting regular monitoring of all the influent and effluent parameters. The approval of Govt. of India regarding recognition of our laboratory and the analysis results of the effluent of our laboratory for the period October – 2018 to January – 2019 are enclosed as per **Annexure - 12 and Annexures 13 to 16.**

9. Regarding SMS alerts indicating the variation in values of COD & TSS have been noted, which might be due to sticking of some foreign particle on the electrode of the online monitoring system or due to heavy rain in the area or some technical fault in the instrument and the same was for very few seconds and there after the values of the parameters regained its normal value. In order to ensure effective functioning of online monitoring system, we are calibrating the system by our own IT department from time to time. The report of calibration by our IT department is enclosed as per **Annexure – 17.** However, we shall also engage the services of ERRAND ENTERPRISES PVT. LTD, New

Delhi for calibration of online monitoring system and calibration report shall be submitted by the end of February - 2019.

Besides taking effective measures by the industry, we also proposed following short term measures and long term measures for further improvement in the quality of the environment.

Short Term Measures

- i) We shall engage CPPRI Saharanpur for the audit treatment system including soda recovery plant and ground water. The report shall be submitted by end of February - 2019. Letter written to CPPRI Saharanpur is enclosed as per Annexure - 18.
- ii) We shall engage the services of department of soil conservation for approval of the Irrigation Management Plan and report in this regard shall be submitted by end of February - 2019.

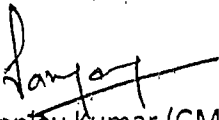
Long Term Measures

- i) Commissioning of ECF bleaching for reduction in the use of chlorine and reduction in effluent load by March - 2019, trials for which have already started 2 - 3 months ago.
- ii) Commissioning of new soda recovery plant of 500 TPD dry black liquor solids by June - 2020.

In light of the above, it is humbly requested that the notice to issue directions under section 33A of the water act 1974 may kindly be withdrawn.

DA/as above

With Regards


Sanjay Kumar (GM - Process QC)

21/5/19
6/2/19

The Environmental Engineer
Punjab Pollution Control Board (PPCB),
Focal Point,
Hoshiarpur

Subject: Notice to issue Directions under 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988

Reference: PPCB Letter No. 524 dated 01/02/2019 received on 04/02/2019

Sir,

This is in continuation to this office letter dated 05.02.2019 submitted to chairman office, Patiala. Further clarifications w.r.t points raised in the notice under 33-A of the water act 1974 is submitted as under

The last paragraph of the Page 2 of the Notice says that "the readings observe for real time monitoring system were: *pH 7.49, COD: 211, BOD: 219, TSS: 30.6. The value for BOD reported as 219 mg/l is not correct and seems to be typographical error at PPCB's end. It should be 21.9 mg/l and we request tht records may pls be reviewed and corrected.

With regard to the results of the analysis of the treated effluent samples collected by the team and analysis done at PBTI, we have some technical observations and would request you to kindly look into these before concluding anything regarding adequacy and efficiency of our Effluent Treatment Plant (ETP) based on the results reported w.r.t BOD & COD.

During visit of the PPCB team, it was explained to the team that we are in the process of commissioning our Chlorine Dioxide plant for replacement of chlorine with ClO₂ in the pulp bleaching process. Therefore, we have to use higher dose of Hydrogen Peroxide (another environmental friendly bleaching chemical) during stabilization of ClO₂ plant so as to commission chlorine dioxide bleaching as per prescribed parameters without using elemental chlorine and hence in view of this, the residual peroxide in the pulp mill effluent might be on much higher side than normal concentration.

- From the analysis, it seems that since the method of overcoming the interference of hydrogen Peroxide on analysis of COD is not mentioned in APHA Standard Methods for the Examination of water and waste water, and might not have been addressed by the analyst while performing analysis of COD in the samples due to lack of information with him about the current bleaching process being followed in our mill. The analysis of COD is affected by interference from various inorganic substances based on the source of waste water samples and removing this interference for correct analysis of the COD is an essential part of the approved standard analytical method. If it is not performed in the standard COD test, the reaction of the

residual hydrogen peroxide with the potassium dichromate reagent, will result in a “false high” COD value, which is a well established fact and addressed by analyst worldwide while analyzing Cod in such samples.

- Similarly, in the method of BOD analysis, residual hydrogen peroxide has also its interference in the analysis. Hydrogen peroxide decomposes residual slowly degradable organic matter is treated effluent during analysis converting into simpler easily biodegradable compound i.e. measurable BOD, leading to higher BOD₃ /BOD₅ values than the actual values. It is mentioned here that during 3 days/ 5 days incubation period in the effluents containing residual H₂O₂, the residual organic are converted to easily biochemically oxidizable compound reflecting as measurable BOD, the analytical BOD₃ / BOD₅ value goes up.

Therefore, it is extremely essential to remove the interference of the residual hydrogen peroxide to have the correct values of COD & BOD. Further, since real time monitoring system works on entirely different principle and is not affected by these interferences, the values reported in the real time online monitoring system are within the same range as earlier.

We would like to submit that this is temporary phase and commissioning of our Chlorine Dioxide Plant will be completed by March, 2019. The higher values of COD & BOD in the analysis report are a result of analytical error due to interference of residual hydrogen peroxide which was removed during analysis.

- With regard to Yellow alerts generated by CPCB w.r.t online monitoring system, it is submitted that online monitoring system have been installed for as a part of self-monitoring mechanism by industry and as per “CPCB’s Framework for regulatory use of continuous real time effluent quality & air emission monitoring data”, yellow alert is the first level alert (which is followed by orange, red and purple), wherein no action is required by the Regulator and the Industry has to take corrective actions including Investigating & recording the apparent cause of the deviation and corrective action taken, recording the observations on the influent characteristics during the past 24 hours, check the internet / Power connectivity / Sensor defect of the equipment and restore it accordingly. The timely corrective actions were taken by our mill on yellow alerts and reported to both PPCB & CPCB.
- We are not discharging are effluent for stagnation inside or outside the premises and the pits observed by the team were due to uprooting of Sarkanda by the farmers and no stagnation caused by our mill.

In view of the above, It is requested that above clarifications may kindly be looked into purely on technical grounds to conclude regarding analysis results & adequacy of our treatment plant and the notice issued to us may

kindly be withdrawn. We may also be allowed to get re-sampling after commissioning of our chlorine dioxide plant in the month of April 2019

With Regards

Sanjay Kumar
General Manger (Process QC)

CC- A copy of above is forwarded to Chief Environmental Engineer, Focal Point Jalandhar for kind information & necessary action please

Sanjay Kumar
General Manger (Process QC)

JOINT REPORT OF CPCB & PUNJAB SPCB

(Original Application No. 850 of 2018)

Residents of Salla Khurd, Raniala Vs. State of Punjab

Joint report of CPCB and Punjab Pollution Control Board (PPCB) for M/s Kuantum Papers Ltd., Salla Khurd, Teh- Garhshankar, Dist-Hoshiyarpur, Punjab

1 BACKGROUND

The Hon'ble NGT vide its order dated 19.12.2018 in the matter of O.A No. 850/2018 of Residents of Salla Khurd, Raniala Versus State of Punjab issued following order for compliance:

"Let, a joint report be furnished by CPCB and Punjab SPCB on factual aspects of the matter and action taken, if any, to this Tribunal within one month from the date of receipt of copy of this order by e-mail at ngt.filing@gmail.com. The nodal agency will be PSPCB to coordinate and comply with the order".

In pursuance to the aforesaid Hon'ble NGT order, a joint inspection team of CPCB & PPCB visited M/s Kuantum Papers Ltd. Salla khurd, Punjab (*hereinafter referred to as 'unit'*) on 17.01.2019.

2 INTRODUCTION:

M/s Kuantum Papers Ltd. manufactures writing printing Paper using Wood (Ecllyptus/popular, bamboo) and Agro residue (bagasse, wheat straw, sarkanda), vineer waste/chips etc.

The consented capacity of the unit is 450 Mton/day. In the process, the unit uses chemical such as caustic soda, chlorine gas, lime, Hydrogen Peroxide, fillers & other chemicals.

The consent of the unit is valid upto 31.03.2019 under Water and Air Act(s) and Authorization under Hazardous Waste Rules is valid upto 09.03.2019.

3 FRESH WATER CONSUMPTION AND UNIT PRODUCTION:

The Unit has 12 borewells for meeting the freshwater consumption demand. The Unit has applied on 12.07.2018 for obtaining permission/NOC from the Central Ground Water Authorities (CGWA) permission regarding abstraction of freshwater through 12 borewells. Four borewells are not in use (borewell no. 1,3,5,9). The total freshwater consumption and Unit production, as per the data provided by the unit, are as follows:

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Page 1 of 7

INSPECTION REPORT OF M/S KUANTUM PAPERS LTD., HOSHIYARPUR, PUNJAB

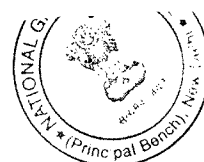


Table 1: Freshwater consumption and production data

Date	Fresh water consumption (m ³ /day)	Production (TPD)
01/01/2019	17279	197.429
02/01/2019	21478	468.485
03/01/2019	20947	380.761
04/01/2019	18403	293.656
05/01/2019	16452	329.947
06/01/2019	17487	217.525
07/01/2019	16233	262.237
08/01/2019	19829	240.502
09/01/2019	22308	294.705
10/01/2019	20780	326.170
11/01/2019	21180	321.465
12/01/2019	20133	388.891
13/01/2019	20265	416.188
14/01/2019	17971	342.249
15/01/2019	18512	298.206
16/01/2019	17026	215.099
Average	19142	312 TPD

During the visit, the production was 375 TPD. The Unit average production is recorded as 312 TPD and average freshwater consumption as 19142 m³/day. It shows that average fresh water consumption is 61.35 m³/tonne of paper production.

4 BLACK LIQUOR MANAGEMENT AND BLEACHING PROCESS:

BLACK LIQUOR MANGAMENT

The Unit has two processes for production of pulp and paper. One is from wood as raw material and other is agro residue as raw material for writing printing paper production. The mill has one continuous digester (6 TPH capacity) and 03 rotary digesters of 80 m³ each for cooking purpose.

The black liquor generated from above two processes is treated in two chemical recovery plant (CRP) separately. The agro based production generates black liquor of about 2000 m³/day and wood based production generates about 650 m³/day. Conventional CRP is for the treatment of black liquor generated from agro based production and has capacity of 205 TPD solid firing per day. Fluidized based reactor installed for treatment of black liquor generated from wood-based production & has capacity of 90 TPD solid fired per day.

During the visit both the CRPs was found operational.

BLEACHING PROCESS

The Unit uses elemental chlorine for the bleaching of pulp to lighten its color and whiten the pulp for paper making. The bleaching involves chlorination, extraction (H₂O₂+NaOH), and bleaching by hypochlorite.

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Page 2 of 7



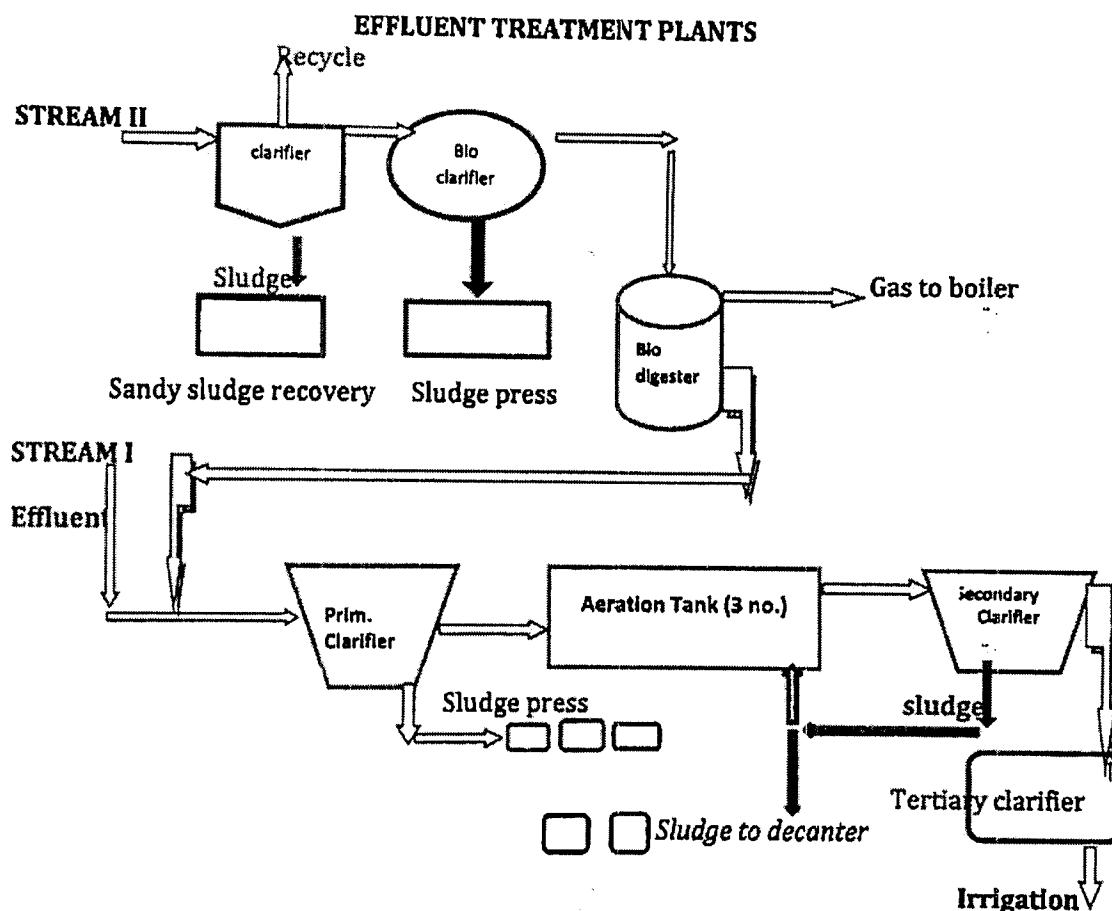
Upgradation of bleaching process. In the agro based production plant, the Unit has recently installed oxygen delignification (ODL) plant and ClO₂ plant. The Unit representative informed that the ODL and ClO₂ plant in agro based production shall be functional by April 2019 and thereafter they will not use any elemental chlorine gas in bleaching. The Unit has proposed to convert the wood based production also into elemental chlorine free (ECF) bleaching plant by March 2020.

*See this
see to it
Proposed.*

5 EFFLUENT TREATMENT PLANTS (ETPS)

The wastewater is generated from different section of process and operation. Unit has three streams of wastewater as follows:

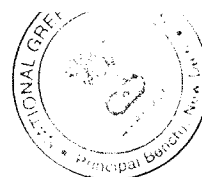
1. **Stream I** (Effluent from paper machine, pulp mill, etc.)
2. **Stream II** (Wet washing effluent of agro raw material)
3. **Stream III** (Black liquor)



STREAM III -

The Unit has two Chemical Recovery Plants (CRP) for the management of black liquor. The conventional CRP is installed for the treatment of black liquor generated from agro based production and the fluidized bed reactor (FBR) is installed for the treatment of black liquor generated from wood based production.

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The black liquor is concentrated in multiple effect evaporators (MEE) and then the concentrated black liquor /heavy black liquor is sprayed into recovery boiler or incinerator. In the FBR, Soda ash is produced in the forms of granules is collected and packed in bags and sold.

6 SAMPLE COLLECTION AND ANALYSIS

PERFORMANCE OF ETP SYSTEM

Waste water samples (Grab sampling) were collected by joint team during the visit and sealed samples were handed over to Punjab Pollution Control Board (PPCB) for analysis. The results are as follows.

Table 2: Analytical lab results of ETP

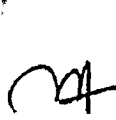
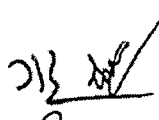
Location of sample	Parameters, mg/l except pH				
	pH	BOD	COD	TSS	AOX*
Inlet of ETP (Mixed stream I & II)	6.53	443	3840	628	--
Outlet of ETP (Final outlet for plantation)	7.63	106	608	87	15.2 mg/l (0.685 kg/ton)
Discharge standard (notified under E(P)Rules, 1986) (Large paper mill)	7.0-8.5	30	350	50	1.0 kg/ton of paper

As per the above results, the Unit is non-complying with effluent discharge norms notified under E(P) Rules, 1986.

*Considering the effluent discharge of 16,903 m³/day and production of 375 TPD during the visit, the AOX comes as 0.685 kg/ton of paper.

Observation made during the visit are as follows:

1. The Unit and its ETP was operational during the visit.
2. The Stream II effluent (wet washing effluent) after treatment through bio-digesters is mixed with stream I effluent (paper machine effluent) & no equalisation tank was found before subjecting the mixed effluent for treatment. Samples of the mixed stream I & II before treatment (inlet to primary clarifier) & after final treatment (outlet of tertiary clarifier) was collected by the joint team.
3. The ETP outlet discharge flow rate data was not being displayed in the real-time OCEMS panel at ETP during the visit and unit requires to connect / restore the flow meter data to CPCB server.
4. The treated effluent was being discharged into the land (within and outside the unit premises) for irrigation purpose. The Unit representative informed that treated effluent is carried through underground pipelines to the nearby villages such as Salla khurd, Salla kalan, Pensera, majari etc. As per the consent the unit has 110 acres of land within the premises and 2050 acres in nearby village for irrigation.
5. The instantaneous reading of flow meters installed at 06 pipelines (for irrigation through 5 pumps and one by gravity) was recorded during the visit as 84.5 m³/hr, 319.4 m³/hr, 146.233 m³/hr, 283.3 m³/hr, 307.7 m³/hr, 121 m³/hr. The outlet discharge pumps has auto leveller and once the level of treated effluent goes down the pumps stops. As per the logbooks provided by the unit, the effluent discharge during the visit is 16,903 m³/day.

 Page 4 of 7



Ground Water Quality

To assess the present condition of ground water quality, samples have been collected from tube wells from different villages such as Saila Khurd, Saila kalan, Pansera. The physico-chemical characteristics of ground water samples taken from tubewells from three villages has been presented in Table 3.

Table 3: Physico-Chemical Characteristics of Groundwater Samples from tube wells

S.N	Sampling location	Parameters (mg/l), except pH, and conductivity									
		pH	Cond.	TDS	Total Hardness	Total Alkalinity as CaCO ₃	Calcium	Magnesium	Chloride	Sulfate	Nitrate
1	GW-1	7.71	874	562	460	316	73	38	12	12	07
2	GW-2	7.77	536	345	280	312	48	21	10	02	1.6
3	GW-3	7.28	1463	982	580	336	100	63	16	16	16.2
IS 10500-2012 drinking water Standards											
(Acceptable limit)	6.5-8.5	NA	500	200	200	75	30	250	200	45	
(Permissible limit in absence of alternate source)	6.5-8.5	--	2000	600	600	200	100	1000	400	45	
GW1: Tube well of PWRMDC at village Saila Kalan; GW2: Tube well of PWRMDC at village Saila Khurd; GW3: Tubewell of Sh. Gurwinder Singh S/o Rashpal Singh at Village Pansera											

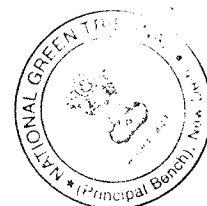
The concentrations of heavy metals in the ground water samples have been given in table 4. Perusal of table revealed that the concentrations of heavy metals are within the acceptable limit for all parameters.

Table 4: Heavy Metal Analysis of Groundwater Samples from tubewells

S.N	Sampling location	Parameters (mg/l)											
		As	Cd	Cr	Cu	Fe	Mn	Ni	Pb	Zn	Co	Se	V
1	GW1/M	BDL	BDL	BDL	BDL	0.01	0.06	BDL	BDL	BDL	BDL	BDL	BDL
2	GW2/M	BDL	BDL	BDL	BDL	0.09	0.02	BDL	BDL	BDL	BDL	BDL	BDL
3	GW3/M	BDL	BDL	BDL	BDL	0.01	0.06	BDL	BDL	BDL	BDL	BDL	BDL
IS 10500-2012 drinking water Standards													
(Acceptable limit)	0.05	0.003	0.05	0.05	0.3	0.1	0.02	0.05	5	-	0.01	-	
(Permissible limit)	0.05	0.003	0.05	1.5	0.3	0.3	No relax	No Relax	15	-	No relax	-	
GW1/M: Tube well of PWRMDC at village Saila Kalan; GW2/M: Tube well of PWRMDC at village Saila Khurd; GW3/M: Tubewell of Sh. Gurwinder Singh S/o Rashpal Singh at Village Pansera													

BDL - below detection limit.

[Handwritten signatures and initials]



STACK MONITORING RESULTS

The Unit has three boilers (2x26 TPH and 1x60 TPH) and one recovery boiler. The 26 TPH boiler has common stack and connected to ESP as air pollution control device (APCD). The 60 TPH boiler has ESP as APCD.

Stack monitoring was conducted at stack of the boilers during the visit and samples were analyzed by Punjab Pollution Control Board (PPCB). The analytical report of the particulate matter is tabulated in the following table-5.

Table 5: Stack monitoring results

S.No	Location	Particulate Matter (PM) (PPCB Lab Report)	Air Quality Norms (mg/N m ³)
1	Stack (common) attach with two boilers of 26 TPH each	41 mg/Nm ³	150 mg/Nm ³
2	Stack attach to coal fired boiler of 60 TPH	37 mg/Nm ³	

The ash from the boiler section is disposed through land filling as informed by the unit representative. The Unit representative informed that 10 % of the ash is used in brick manufacturing plant installed within the premises.

7.0 FINDING AND CONCLUSION DRAWN BY THE JOINT INSPECTION TEAM

Based on the above recorded observations and analysis results of the wastewater, emission and groundwater following are the findings:

1. The Unit is non-complying with the effluent discharge norms stipulated under E(P)Rules, 1986 for BOD, COD & TSS parameters. The final treated effluent showed BOD-106 mg/l (against norms of 30 mg/l), COD- 608 mg/l (against 350 mg/l) and TSS- 87 mg/l (against 50 mg/l).
2. The OCEMS display panel at ETP was not showing the ETP outlet discharge flow meters reading during the visit and unit requires to connect / restore the flow meter data to CPCB server.
3. The quality of ground water collected from tubewells of all three villages showed exceedance w.r.t acceptable norms for parameter, viz, total hardness, total alkalinity, but they are within the permissible limit of BIS Standards. The calcium and magnesium level at the Pansera village showed exceedance w.r.t acceptable norms, however are within the permissible limit.
4. The heavy metals in the groundwater samples are well within the BIS standards for drinking water.
5. The stack monitoring results showed compliance with the emission norms.

Page 6 of 7

M *213* *[Signature]*


INSPECTION REPORT OF M/S KUANTUM PAPERS LTD., HOSHIYARPUR, PUNJAB





8.0 RECOMMENDATIONS

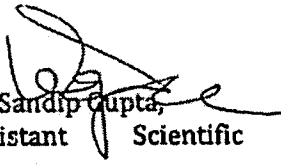
1. The unit shall submit adequacy assessment report of their ETP along with water balance audit report prepared by reputed institutes/organizations like IIT/CPPRI/NEERI/NIT etc. and accordingly should augment and upgrade their ETP as per the recommendation of the adequacy assessment report as well as incorporate other suggestions of the adequacy report.
2. The Unit shall install flow measuring device at the inlet of ETP and should maintain logbook for the same.
3. The Unit shall connect / restore the flow meters data at the outlet of ETP to CPCB server.
4. The Unit shall submit ash management plan to PPCB and should dispose the ash in a scientific manner.
5. The Unit shall submit irrigation water management plan to Punjab Pollution Control Board (PPCB) and PPCB should verify the adequacy of the submitted plan and link with the consent.
6. The Unit shall expedite the proposed work for elemental chlorine free bleaching in the agro based production by April 2019.
7. The calibration of the OCEMS instrument shall be periodically done and manual result should be compared with real-time online data.

9.0 INSPECTION TEAM


Sh. Kamlesh Singh,
Scientist D,
CPCB, Delhi


Sh. G.S Majithia,
Chief Environmental
Engineer,
PPCB, Jalandhar.


Sh. Ashok Sharma,
Environmental
Engineer,
PPCB, Hoshiarpur.

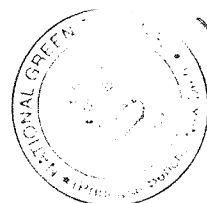

Sh. Sandip Gupta,
Assistant Scientific
Officer,
Zonal Office - Lab,
Jalandhar, PPCB.

...0 INSPECTION DATE - 17.01.2019

Page 7 of 7

INSPECTION REPORT OF M/S KUANTUM PAPERS LTD., HOSHIYARPUR, PUNJAB

\\TRUE COPY\\



E. COPY

Punjab Pollution Control Board

ANNEXURE R-14

Regional office

E-18-A Focal Point, Hoshiarpur

E-mail : ppcbrohoshiarpur@gmail.com website www.ppcb.gov.in Phone/FAX:01882-248020

No. 576

REGD

Dated 1-3-2019

To

M/s Kuantam Papers Ltd.,

Village Saila Khurd, Tehsil Garhshankar Distt Hoshiarpur.

Sub: Proceedings Chairman of the personal hearing before the worthy of the Board on 05.02.2019 at head office Patiala u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988.

Ref: Zonal Office letter no.963 dated 22.02.2019

It is intimated that the industry was given personal hearing before the worthy Chairman of the Board on 05.02.2019 at head Office Patiala u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988, wherein it was decided as under:-

- 1) The industry shall engage CPPRI, Saharanpur and get its existing ETP and chemical recovery plant audited and a proposal be prepared for up-

gradation required in existing ETP and cheicla recovery plant, so as to meet the effluent standards as prescribed under the law and the report be submitted to the PPCB within 21 days.

2) The industry shall prepare an irrigation Management Plan from a consultant of good repute for the whole of the commana area available within the industry and outside the industry where treated effluent of the industry is utilized onto land for irrigation purpose within 15 days and thereafter get it verified and approved from the Department of Soil & Water Conservation, Punjab and submit the same to the Punjab pollution Control Board within 21 days.

3) The industry shall get the groundwater study of the whole command area where the treated effluent is utilized onto land for irrigation purpose from any expert institute in teh field of Hydrogeology and submit report to Punjab Pollution Control Board within 21 days.

4) The industry shall prepare a Standard Operating Procedure (SOP) for the operation of ETP and Chemical Recovery Plant (CRP) and shall maintain the record of operation of ETP on daily basis and shall submit monthly record duly verified by the Designated Authority of the industry to the Punjab Pollution Control Board.

5) The industry shall obtain the permission/ NOC from Central Ground Water Authority (CGWA) regarding abstraction of fresh water from all the existing tube-wells in the industry.

6) The industry shall install electromagnetic flow meter at the inlet of the ETP before the equalization tank within 21 days.

7) The industry shall commission the Elemental Chlorine Free Bleaching (ECF) in the agro based production by 31.03.2019

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130

8) The industry shall install and commission a new Soda recovery plant of 500 TPD capacity dry black liquor solids by 31.03.2020.

You are, therefore, requested to comply with above said submit the said decisions, immediately and submit the compliance to this office.

Treat it as most urgent, please

Environmental Engineer

\\TRUE COPY\\

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Kuantum Papers Ltd

The Paper Makers

ANNEXURE R-15

Date: 7th March, 2019

To

The Chief Environmental Engineer

Punjab Pollution Control Board,

Focal Point,

Jalandhar

Punjab

Kind Attn: Mr. G.S. Majithia, CEE

Sub: Steps taken by the Company in response to the inspection of Kuantam Paper Mill on 17.01.2019 and Compliance of the decision taken in the personal hearing held on 5.2.2019 before the worthy Chairman of the Board.

Sir,

The present letter is being filed on behalf of Kuantum Papers Limited ("Company"). At the outset the Company submits that it is compliance with the applicable environment statutes and provisions therein. By way of the present letter, the Company would like to place on record the steps being taken and proposed to be taken by the Company, to reduce its footprint on the environment.

1. The Company is engaged in the manufacturing of Writing & Printing paper, having average production of 375 TPD, with conventional

recovery plant for agro black liquor solids for caustic soda recovery and co-generation plant of 17.5 MW with Rice Husk, Coal & Bio-gas as fuel. For the purposes, the Company has received Consents to operate / Authorization issued under the provisions of Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 for discharge of emissions, Section 25 of Water (Prevention and Control of Pollution) Act, 1974 for discharge of effluents, Rule 5 of the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016 and Bio-Medical Waste Management Rules, 2016, copies of which are enclosed alongwith as ANNEXURE 1. The said Consent to operate / Authorization clearly permits the Company to carry on manufacturing activity, subject to the condition that the discharge of the effluent / emission should not exceed the prescribed values.

2. At the outset, it is stated that the Company is in compliance with the terms and conditions set out in the Consent to Operate / Authorization issued by the Punjab Pollution Control Board ("PPCB"). The treated waste-water discharge from the Company's plant is well within the limits, permitted under the Consents to Operate / Authorization, issued to the Company and is utilized for irrigation purposes. The Company has on a periodic basis got samples tested to ensure compliance with the standards set under Air (Prevention and Control of Pollution) Act, 1981 for discharge of emissions; and Water (Prevention and Control of Pollution) Act, 1974 for discharge of effluents and the respective Consent to operate/ Authorization issued thereunder. The Company has also installed an Online Continuous Effluent Monitoring System ("OCEMS"), which has been calibrated as per the standards set out by the Central

Pollution Control Board ("CPCB") and/or PPCB (collectively referred to as "Pollution Control Board") and is providing real-time data to the Pollution Control Boards regarding the effluent discharge from the Company's plant.

3. Despite being in compliance with the environment norms and parameters set out in the Consent to Operate / Authorization, the Company, in an effort to further bring down its environmental impact, has continuously been taking various measures, which are discussed herein below. These measures will show that the Company was and is in compliance with the environment norms and is continuously adopting best environment practices to ensure sustainable development, without causing damage to the environment at large.

4. For the purposes of the present letter, the discussion is divided into three parts viz., Part A – Compliance with Water Pollution Norms, Part B – Compliance with Air Pollution Norms and Part C – Short-term and Long-term measures to reduce pollution. Part A is further divided into sub-parts, dealing with various elements such as (a) Effluent Quality, (b) Ground Water Quality and (c) Soil Quality.

PART- A –Water Pollution Norms

5. The Company requires water for the purposes of manufacturing paper. The water is required for preparation of the raw materials, for cooking / pulping of raw material, for pulp washing, pulp bleaching and finally for manufacturing Paper sheets. The Company gets its water from the 9

operational tube wells, out of the total 12 tube wells installed at its premises. The total water requirement of the Company is 21000m³ per day, which comes to 50 m³ per ton of paper and is well within the norms prescribed by CPCB. The total quantity of the treated effluent discharge of the Company is about 17000 m³ per day.

6. From its various manufacturing process explained above, the Company has four streams of effluent, which are:-

- a) Washing of Raw Material;
- b) Pulping Section;
- c) Machine Section;
- d) Re-boiler

7. The waste water / effluent from the washing of the Raw Material is treated in the ETP as under:-

- a. The waste water or effluent from washing of raw material is sent to a bio-clarifier having capacity of 1150m³ with 16m diameter with the depth 5.5m.
- b. This is followed by anaerobic sludge blanket reactor (UASBR) having capacity of 3928.6m³ with 25m diameter and 8m depth. UASBR is adequate to treat 8000m³ per day of effluent, whereas the present discharge from bio-clarifier is 4000m³ per day. With the operation of UASBR, approximately 2000m³ per day of bio-gas is generated which is used as fuel in the boiler. The treatment efficiency of UASBR in terms of removal of COD & BOD is 59% and 83%, respectively.

c. The Anaerobic biological treated effluent is imparted aerobic biological treatment through aeration tank No.3 called as ASP-3. It has capacity of 4010m³, where the flow rate of effluent is maintained as 4000m³ per day with hydraulic retention time of 24hrs. the biomass (MLSS) is maintained in the range of 4000-5000mg/l and DO in the range of 1.5-2 mg/l. The sludge volume index is 90-130 ml/g. An adequate dose of DAP and urea is given as nutrient to the biomass. The mixed liquor is further carried into secondary clarifier for separation of biomass and clear treated effluent. The treatment efficiency of aeration tank in terms of removal of BOD, COD and TSS has been observed as 91%, 73% and 68%, respectively.

8. For the treatment of the remaining three streams of waste water / effluent, the following process is being followed by the Company:-

a. Primary Clarifier

For the removal of TSS, COD and BOD, a primary clarifier of capacity 5100 m³ with diameter of 38m and depth of 4.5m, has been installed. The hydraulic retention time of primary clarifier is 9.4 hrs with overflow rate of 11.5 m³/m²/day. The treatment efficiency in terms of removal of TSS, COD and BOD is 90%, 50% and 50%, respectively.

b. Aeration tank No.1

It has capacity of 6670 m³, where the flow rate of effluent is maintained as 9000 m³ per day with hydraulic retention time of 17.8 hrs. The biomass ('MLSS') is maintained in the range of 4000-5000 mg/l and DO in the range of 1.5-2 mg/l and the sludge volume index is 90-130 ml/g. An adequate dose of DAP and urea is given as nutrient to the biomass. The mixed liquor is further carried into secondary clarifier for separation of biomass and clear treated effluent. The treatment efficiency of aeration tank no. 1 in terms of removal of BOD, COD and TSS has been observed as 90%, 72% and 66%, respectively.

c. Aeration tank No. 2

It has capacity of 4050 m³, where the flow rate of effluent is maintained as 4000 m³ per day with hydraulic retention time of 24 hrs. The MLSS is maintained in the range of 4000-5000 mg/l and DO in the range of 1.5-2 mg/l and the sludge volume index is 90-130 ml/g. An adequate dose of DAP and urea is given as nutrient to the biomass. The mixed liquor is further carried into secondary clarifier for separation of biomass and clear treated effluent. The treatment efficiency of aeration tank no. 2 in terms of removal of BOD, COD and TSS has been observed as 94%, 77% and 72%, respectively.

d. Secondary Clarifier

For the separation of biomass and treated liquid effluent, a secondary clarifier of capacity 5100m³ having adequate HRT and overflow rate has been provided. Secondary clarifier is adequate to clarify the mixed liquor entering into it from aeration tanks.

e. Tertiary Clarifier

For further treatment of the effluent, a dose of Poly-Aluminum Chloride ("PAC") is added which further reduces the values of BOD, COD and TSS and the various parameters namely pH, BOD, COD & TSS remain within the permissible limits of 6.5 – 8.5, 30 mg/l, 250 mg/l and 50 mg/l, respectively.

Waste-Water / Effluent Results

9. It is pertinent to mention here that the Company is regularly monitoring the performance of ETP and is having the samples taken from the ETP tested from M/s Environtech laboratories, Mohali, which is NABL accredited and recognized by the PPCB. The test results are summarized hereunder for ease of reference:-

Sr. No.	Date of Sample Collection	Parameters			
		pH	BOD (mg/l)	COD (mg/l)	TSS (mg/l)
1.	03.05.2017	7.20	18	175	32
2.	12.02.2018	7.50	19	180	26
3.	28.08.2018	7.21	25	115	28

The aforementioned test results clearly show that the treated waste water / effluent from the Company is meeting the prescribed norms fixed by the PPCB at the time of issuance of the Consent to Operate / Authorizations. Copies of the Reports issued by M/s Environtech laboratories, Mohali is annexed herein as ANNEXURE 2.

10. Besides, the technical team of M/s Sophisticated Analytical Instruments Laboratories Society, Thapar Technology Campus, Patiala has also collected the sample from (a) ETP Outlet and (b) Irrigation Point Outlet (village Nariala), on 07.01.2019. These samples were analyzed by the same laboratory, results of which are as under:-

Sr. No.	Point of Sample Collection	Parameters			
		pH	BOD (mg/l)	COD (mg/l)	TSS (mg/l)
1.	ETP outlet	7.2	8.6	173	34
2.	Irrigation point outlet (in irrigation village Nariala)	7.1	12.0	214	32
Permissible Limits		6.5 – 8.5	30	250	50

Copy of the Report issued by M/s Sophisticated Analytical instruments Laboratories Society, Thapar Technology Campus, Patiala is annexed along with as ANNEXURE 3.

Ground Water / Drinking Water Quality Results

11. The Company has also got quality of the drinking water analyzed from M/s Environtech laboratories, Mohali, a NABL accredited laboratory and approved by PPCB on 03.08.2017. As per the report, the values of the parameters in the ground water have been observed as pH – 7.26 – 7.47, TDS – 160-404 mg/l, alkalinity -130 mg/l, chloride - 27 mg/l, calcium -19-72 mg/l, magnesium – 9.0-25.0 mg/l and total hardness 86 mg/l which are

within the permissible limits of 6.5 – 8.5, 500 mg/l, 200 mg/l, 250 mg/l, 75 mg/l, 30 mg/l and 200 mg/l, respectively. Pertinently, the values of heavy metals either are within the permissible limits or not detectable in these ground water samples. Besides, no bacterial contamination or pesticides residues have been found in these drinking water samples. A copy of the Report dated 03.08.2017 issued by M/s. Environtech Laboratory, Mohali is annexed along with as ANNEXURE 4.

On 30.07.2018, the Company got the quality of the drinking water in Villages Saila Khurd, Hilra, Saila Kalan, Majra, Dingrain and Nariala analyzed from Punjab Biotechnology Incubator, Mohali, which is a lab approved by Punjab Pollution Control Board. As per the report, the values of the parameters in the ground water have been observed as pH = 7.28 – 7.59, TDS = 341 – 417 mg/l, chloride = 06 - 190 mg/l, calcium = 28 - 117 mg/l, magnesium = 25 – 31.4 mg/l which are within the permissible limits of 6.5 – 8.5, 500 mg/l, 250 mg/l, 75 mg/l, 30 mg/l respectively. A copy of the Report dated 30.7.2018 issued by Punjab Biotechnology Incubator, Mohali, is annexed as ANNEXURE 4-C.

Soil Analysis Results

12. In addition to the testing of the Effluent & Water samples, the company also gets the quality of soil analyzed from the Department of Soil Sciences, Hoshiarpur (Krish Vigyan Kendra) twice a year. The latest testing was conducted in June, 2018, results of which are as under:-

Sr.	Point of	Parameters
-----	----------	------------

No.	Sample Collection	pH	Salt (millimhos/cm)	Organic Carbon	Available Phosphorus	Available Potash
1.	Various Villages	7.2-8.0	0.25-0.35	0.18-0.73%	5.2-8.6 Kg/Acre	49.6-54.7 Kg/ Acre
Permissible Limits		6.5 – 8.7	0.80	0.4-0.75%	More than 5.0-9.03 Kg/Acre	More than 55 Kg/Acre

A copy of the Report dated June, 2018 issued by Krishi Vigyan Kendra, Hoshiarpur is attached along with as ANNEXURE 5.

13. Thus, even the soil testing clearly establishes that the Company is in compliance with the prescribed norms.

PART – B – Air Pollution Norms

With respect to emission, the Company has 3 boilers each, having capacity of 26 TPH, 26 TPH and 60 TPH. The Company also has a recovery boiler with capacity of 220 TPD and is fired by black liquor. The Two boilers having capacity of 26 TPH have common stack of 52m height, whereas, the third boiler having capacity of 60 TPH has single stack of 70m height. All these stacks have been attached with separate electrostatic precipitator which is a high efficiency equipment to control the air pollutants. Stack emissions samples have been collected by the PPCB from time to time and the analysis results are mentioned as under:-

DATE	PARAMETERS in mg/Nm ³ at 12% CO ₂		
	Particulate Matter (2 boilers of capacity of 26 TPH each)	Particulate Matter (Boiler of capacity of 60 TPH)	Particulate Matter (Recovery Boiler of capacity of 20 TPH)
14.03.2018	44	57	64
21.08.2017	64	82	70
19.03.2016	48	52	87
19.09.2016	39	63	87
20.10.2015	90	72	87
28.10.2014	44	35	32

Permissible limit is 100 mg/Nm³ at 12% CO₂

The above analysis results indicate that, with respect to air emissions, the Company is fully compliant with the provisions of the Air (Prevention and Control of Pollution) Act, 1981 and no violation can be attributed to the Company. Copies of the reports are annexed at ANNEXURE 6.

14. The aforementioned test results for both Water and Air effluents / emissions, clearly show that the Company is in compliance with the applicable Environment laws and provisions therein.

PART – C – Short term & Long-term Measures

15. Even though the Company is strictly in compliance with all the applicable environmental parameters, the Company is committed to further reduce its

footprint on the environment and in order to ensure the same, the Company has planned various Short-term and Long-term measures, aimed at improving the values of the effluent / emissions discharged from the Company' plant, which are already within the permissible limits.

16. The Company has executed/planned the following short term measures that will improve the effluent / emission value.

a. The Company had requested for a technical audit of the Effluent Treatment Plant (ETP) from Central Pulp & Paper Research Institute (CPPRI), Saharanpur. A copy of the report dated 28th February, 2019 is annexed herewith as ANNEXURE 7.

As per the recommendations of CPPRI, the Company has started the construction work of the Equalisation Tank before the primary clarifier.

b. The Company had requested for a technical audit of the Chemical Recovery Plant (CRP) from Central Pulp & Paper Research Institute (CPPRI), Saharanpur. The copy of the report is in transit and will be submitted to you shortly.

c. The Company has re-calibrated, its Online Continuous Effluent Monitoring System ('OCEMS'), which is connected to the CPCB/PPCB Server and sends them real time updates on the various effluent parameters. A copy of the Calibration Certificate from Errand Enterprises dated 9th February, 2019 is annexed herewith as ANNEXURE 8.

d. The Company has re-calibrated its Online Stack Emission Monitoring System, which is connected to the CPCB/PPCB Server and sends them real-time updates on the air quality. A copy of Calibration certificate from Nevco Engineers Private Limited dated 11th February, 2019 is annexed herewith as ANNEXURE 9.

e. The Company has applied for approval of its Irrigation Management Plan with the State Government (Department of Soil Conservation): A copy of application submitted along with the plan is annexed herewith as ANNEXURE 10.

f. The Company has initiated the process of study of the ground water of the whole command area where the treated effluent is utilized onto land for irrigation purposes from Sh. Daljit Singh Saini, Former Superintendent – Hydrogeology (CGWB) Ministry of Water Resources (Govt. of India), Chandigarh who is an expert in the field of Hydrogeology. The report will be submitted soon.

g. The Company has also prepared a complete Ash Management Plan and a copy of the same is annexed herewith as ANNEXURE 11.

h. The SOP for operation of ETP & CRP has been prepared and record of operations of ETP is being maintained on a daily basis.

i. The Company has already applied for permission/NOC from CGWA regarding abstraction of fresh water from existing tube wells.

Reminders have also been issued to the said department and we are awaiting a response from them on the same.

j. Regarding the installation of Electrostatic Flowmeters at the inlet of the ETP, the company has already requested for Quotations from the concerned vendors. The same shall be installed after finalizing the vendor.

k. The Company plans to commission Chlorine Dioxide (ClO₂) bleaching plant by March, 2019 which result in reduction in the value of Absorbable Organic Halides ("AOX").

17. In addition to above, the Company has planned the following Long-term measures that will improve the values of the effluent / emission generated by the Company:-

- a. The Company plans to commence Elemental Chlorine Free (ECF) bleaching, which is an environment friendly process, for entire pulping by 31 March, 2019. This process will result in elemental Chlorine free bleaching and value of AOX shall be reduced to almost negligible and quality of water effluent shall be greatly improved.
- b. The Company plans to commission a new Chemical (Soda) Recovery plant by 31 March, 2020 that will enable the Company to close its existing Fluidized bed reactor, resulting in further reduction of stack emission values and improvement in the quality of the environment.

18. We also point out that the aforementioned measures which the Company has taken, will further improve the readings of the various parameters, although the readings are already well within the permissible limits. The Company is taking these steps to discharge its social obligation towards the environment at large and to the people living in the surrounding villages. The Company is committed to the protection of the environment and by regularly having its effluents / emission tested, ensures that the discharge values remain within the permissible limits as prescribed by the regulatory bodies.
19. The Company therefore requests you to kindly consider the aforementioned facts and take into consideration all the environmental compliances of the Company while preparing its report or recording its finding, pursuant to the joint inspection of the Company's factory premises on 17.01.2019.
20. The Company remains available to provide every assistance that may be required by the Pollution Control Boards and requests that no prejudicial action be taken against the Company and its functioning business without affording reasonable opportunity to respond and/ or take necessary corrective measures, if necessary.
21. The contents of the present letter are without prejudice to the rights and contention to the Company. Nothing stated in the present letter shall amount to an admission of any liability or violation on part of the Company.

Thanking you

Sincerely

For Kuantum Papers Limited

(Sanjay Kumar)

General Manager (Process – QC)

Enclosures as above:

CC:-

The Environment Engineer

PPCB

Regional Office Hoshiarpur .

Punjab

Item No.10

Court No. 1

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

Original Application No. 850/2018

Residents of Saila Khurd, Raniala

Applicant(s)

Versus

State of Punjab

Respondent(s)

Date of hearing: 14.03.2019

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

For Applicant(s):

For Respondent (s): Mr. Naginder Benipal, Advocate

ORDER

1. The issue for consideration is the pollution caused by Kuantum Paper Mill adversely affecting the inhabitants of Saila Khurd, Raniala, Saila Kalan, Jassoval, Majari, Paddi Khusi and Pensara village, District Hoshiarpur, Punjab, by discharging polluted air and water.
2. Vide Order dated 19.12.2018, a joint Report was sought from the Central Pollution Control Board (CPCB) and the Punjab State Pollution Control Board (PSPCB) on factual aspects with action taken Report.
3. Accordingly, a joint Report has been received by email on 13.2.2019. The findings and recommendations are as follows:

“

- i. The unit is non-complying with the effluent discharge norms stipulated under E(P) Rules, 1986 for BOD, COD & TSS parameters. The final treated effluent showed BOD-106 mg/L (against norms of 30 mg/L), COD-608 mg/L (against 350mg/L) and TSS- 87mg/L (against 50mg/L).
- ii. The OCEMS display panel at ETP was not showing the ETP outlet discharge flow meters reading during the visit and unit requires to connect/restore the flow meter data to CPCB server.
- iii. The quality of ground water collected from tubewells of all three villages showed exceedance w.r.t acceptable norms for parameter, viz, total hardness, total alkalinity, but they are within the permissible limit of BIS standards. The calcium and magnesium level at the Pansera village showed exceedance w.r.t acceptable norms, however are within the permissible limit.
- iv. The heavy metals in the groundwater samples are well within the BIS standards for drinking water.
- v. The stack monitoring results showed compliance with the emission norms.

Recommendations:

- i. The unit shall submit adequacy assessment report of their ETP along with water balance audit report prepared by reputed institutes/organizations like IIT/CPPRI/NEERI/NIT etc. and accordingly should augment and upgrade their ETP as per the recommendation of the adequacy assessment report as well as incorporate other suggestions of the adequacy report.
- ii. The Unit shall install flow measuring device at the inlet of ETP and should maintain log book for the same.

- iii. *The unit shall connect/restore the flow meters data at the outlet of ETP to CPCB server.*
- iv. *The Unit shall submit ash measuring plan to PPCB and should dispose the ash in a scientific manner.*
- v. *The Unit shall submit irrigation water management plan to Punjab Pollution Control Board(PPCB) and PPCB should verify the adequacy of the submitted plan and link with the consent.*
- vi. *The Unit shall expedite the proposed work for elemental chlorine free bleaching in the agro based production by April 2009.*
- vii. *The calibration of the OCEMS instrument shall be periodically done and manual result should be compared with real-time online data.”*

4. It is clear that violations are serious but action taken is inadequate. Neither any closure has been ordered till compliance nor damages assessed and recovered. PSPCB has, thus, failed to act upon the 'Precautionary' and 'Polluter Pays' principle for preventing further damage and restoring the damage already caused.
5. In view of above, the PSPCB may now take appropriate action in accordance with law.
6. The Joint Committee may assess the extent of damage caused in monetary terms on settled principles requiring the compensation to be deterrent and adequate to meet the cost of restoration.
7. An action taken report may be furnished by the PSPCB and the joint Committee in above terms within one month by email at ngt.filing@gmail.com

List the matter for further consideration on 20.5.2019.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

March 14, 2019
Original Application No. 850/2018
PK





Punjab Pollution Control Board

Zonal office, Near PSIEC, Water Tank, Focal Point, Jalandhar

Phone No. 0181-2601612

www.ppcb.gov.in Email ID - seezojal.ppcb@punjab.gov.in

No 1368
To

Date 25/3/19

M/s Kauntam Papers Pvt. Ltd.
Village Saila Khurd, Tehsil Garhshankar,
Distt. Hoshiarpur.

Subject: Notice to issue directions u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988.

Whereas, it is mandatory on the part of industry to obtain the consent to operate of the Board as required under the Water (Prevention & Control of Pollution) Act, 1974 to operate and outlet for discharge of effluent.

And whereas it is also mandatory on the part of industry to install proper and adequate pollution control devices to contain the concentration of various pollutants in the effluents within the standards prescribed by the Board.

And whereas, the industry was granted consent to operate under the Water (Prevention & Control of Pollution) Act 1974 vide No. R14HSPCTOW1520756 dated 29.08.2014, which is valid upto 31.03.2019 for production of 450 TPD of printing paper and operation of a co-generation power plant of capacity 17.5 MW.

And whereas, the industry was served with notice u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 vide no. 5557 dated 6/9/2018 alongwith an opportunity of personal hearing on 18/9/2018, since the industry was found not conforming to the standards in respect of BOD as per SMS alert system received from CPCB for the data depicted by the online continuous effluent monitoring system and there was complaint against the industry regarding water pollution caused by the industry in the area.

And whereas, in the said hearing it was decided as under:-

- 1) The Chief Environmental Engineer, Jalandhar shall Co-ordinate the visit of PBTI to the industry within 7 days and PBTI shall collect and analysis the treated trade effluent sample and submit report to the Punjab Pollution Control Board.
- 2) The Chief Environmental Engineer, Jalandhar shall visit the industry & asses the adequacy of pollution control measures / disposal arrangements made by the industry & shall submit report / recommendations before next date of hearing.
- 3) The further action will be taken out after receipt of the report.

And whereas, in compliance to decisions taken in the hearing held on 18/9/2018, the industry was visited by the team comprising of officers of the Board and PBTI on 15/11/2018 and the recommendations given by this team are enumerated as under:-

1. The industry should upgrade the existing treatment facility such that the treated effluent meets with the norms prescribed by the Board.
2. The industry shall prepare an Irrigation Management Plan and get its approved from Department of Soil Conservation, Punjab and thereafter to impellent the same in time targeted period.
3. As the treated effluent of the industry is utilize onto land for Irrigation purpose a study of ground water table be conducted for general, heavy metals parameters from all the Villages where the effluent is being applied for irrigation purpose.

And whereas, the industry was again given an opportunity of personal hearing on 5/2/2019 in connection with notice issued to industry u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 and in this said hearing it was decided as under:-

- 1) The industry shall engage CPPRI, Saharanpur and get its existing ETP and chemical recovery plant audited and a proposal be prepared for up-gradation required in exiting ETP and chemical recovery plant, so as to meet the effluent standards as prescribed under the law and the report be submitted to the PPCB within 21 days.
- 2) The industry shall prepare an Irrigation Management Plan from a consultant of good repute for the whole of the command area available within the industry and outside the industry where treated effluent of the industry is utilized onto land for irrigation purpose within 15 days and thereafter get it verified and approved from the Department of Soil & Water Conservation, Punjab and submit the same to the Punjab Pollution Control Board within 21 days.
- 3) The industry shall get the ground water study of the whole command area where the treated effluent is utilized onto land for irrigation purpose from any expert institute in the field of Hydrogeology and submit report to Punjab Pollution Control Board within 21 days.

- 4) The industry shall prepare a Standard Operating Procedure (SOP) for the operation of ETP and Chemical Recovery Plant (CRP) and shall maintain the record of operation of ETP on daily basis and shall submit monthly record duly verified by the Designated Authority of the industry to the Punjab Pollution Control Board.
- 5) The industry shall obtain the permission / NOC from Central Ground Water Authority (CGWA) regarding abstraction of fresh water from all the existing tube-wells in the industry.
- 6) The industry shall install electromagnetic flow meter at the inlet of the ETP before the equalization tank within 21-days.
- 7) The industry shall commission the Elemental Chlorine Free bleaching (ECF) in the agro based production by 31-03-2019.
- 8) The industry shall install and commission a new soda recovery plant of 500 TPD capacity dry black liquor solids by 31/03/2020.

And whereas, the Hon'ble National Green Tribunal vide order dated 19/12/2018 in the matter of O.A No. 850/2018 titled as Residents of Saila Khurd, Raniala V/s State of Punjab passed the following orders:-

" Let, a joint report be furnished by CPCB and Punjab SPCB on factual aspects of the matter and action taken, if any, to this Tribunal within one month from the date of receipt of copy of this order by email at ngt.filing@gmail.com. The Nodal agency will be PSPCB to the co-ordinate and to comply with the order".

And whereas, in compliance to said orders of the Hon'ble National Green Tribunal, the industry was visited on 17/1/2019 by the Joint Team comprising of officers of CPCB and PPCB. The report prepared by the Joint Team after conduct of visit to the industry, was placed before Hon'ble NGT. The finding and conclusion drawn by the joint inspection team are given as under:-

1. The Unit is non-complying with the effluent discharge norms stipulated under E(P)Rules, 1986 for BOD, COD & TSS parameters. The final treated effluent showed BOD-106 mg/l (against norms of 30 mg/l), COD- 608 mg/l (against 350 mg/l) and TSS- 87 mg/l (against 50 mg/l).
2. The OCEMS display panel at ETP was not showing the ETP outlet discharge flow meters reading during the visit and unit requires to connect or restore the flow meter data connectivity to CPCB server.
3. The quality of ground water collected from tube wells of all three villages showed exceedance w.r.t acceptable norms for parameter, viz, total hardness, total alkalinity, but they are within the permissible limit of BIS Standards. The calcium and magnesium level at the Pansera village showed exceedance w.r.t acceptable norms, however are within the permissible limit.
4. The heavy metals in the groundwater samples are well within the BIS standards for drinking water.
5. The stack monitoring results showed compliance with the emission norms.

And whereas, the industry vide letter dated 21/2/2019 has asked the Board to furnish a copy of the report of joint team constituted by the Hon'ble NGT and the findings and conclusions drawn by the joint inspection team are mentioned herein above for the ensuring compliance of the same by the industry.

And whereas, the industry has submitted its reply vide letter dated 7/3/2019 in compliance to the decisions taken in the hearing held on 5/2/2019, which has been taken on record by the Board and the technical details mentioned by the CPPRI, Shaharanpur in its report regarding adequacy assessment of existing ETP and study on the adequacy of chemical recovery system will be discussed in this hearing and the industry shall come prepared to discuss the technical details of said reports in the hearing.

And whereas, the O.A No. 850/2018 titled as Residents of Saila Khurd, Raniala V/s State of Punjab came for hearing before the Hon'ble NGT on 14/3/2019 and the Hon'ble NGT has taken the findings and recommendations of joint team on record and the relevant part of the said order is reproduced as under:-

1. It is clear that violations are serious but action taken is inadequate. Neither any closure has been ordered till compliance nor damages assessed and recovered. PSPCB has, thus, failed to action upon the "Precautionary" and "Polluter Pays" principle for preventing further damage and restoring the damage already caused.
2. In view of the above, the PSPCB may now take appropriate action in accordance with law.
3. The Joint Committee may assess the extent of damage caused in monetary terms on settled principles requiring the compensation to be deterrent and adequate to meet the cost of restoration.
4. An action taken report may be furnished by the PSPCB and the Joint Committee in above terms within one month by email at ngt.filing@gmail.com

And whereas, the industry is violating various provisions of the Water Act (Prevention & Control of Pollution) Act, 1974 intentionally and deliberately.

And whereas the matter has been considered by the Competent Authority to the Board and it has been decided to give hearing u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 to industry.

Now, therefore, Punjab Pollution Control Board in exercise of the powers conferred upon it u/s 33-A of the Water (Prevention & control of Pollution) Act, 1974 as amended in 1988, proposes to issue following directions:

1. That the industry will dismantle and remove all outlets and stop forthwith discharging its trade effluent onto land for irrigation or through any other mode.
2. That the industry will not restart any process unless all necessary water pollution control measures are taken and concentration of various pollutants in its treated trade effluent conforms to the effluent standards laid down by the Board for such discharges and make proposal disposal arrangement for the treated wastewater.
3. That the industry will not restart discharging effluent until it obtains the consent of the Board u/s 25/26 of the Water (Prevention & control of Pollution) Act, 1974 as amended in 1988.
4. That the industry shall not restart its any process / unit unless it comply with the observations of the Joint Team constituted by the Hon'ble NGT.
5. That Punjab State Electricity Board authority will be directed to disconnect the supply of electricity available to project proponent.

You are, hereby, given an opportunity of personal hearing to file objections, if any, on the proposed directions before the Chairman of the Board on **09.04.2019 at 11:30 AM** in his office at Head office, Punjab Pollution Control Board, Nabha Road, Patiala, personally to explain the position, failing which the proposed directions shall be confirmed without giving any further notice/ opportunity.

20/4/19
For Sr. Environmental Engineer
Dated. _____

Endst. No: _____

A copy of the above is forwarded to the Environmental Engineer, Regional Office, Punjab Pollution Control Board, Hoshiarpur for information and you are requested to inform the industry well before the date of hearing and also EERO to attend the hearing on above said date.

c/d -
For Sr. Environmental Engineer

Ref: ETP/PB/HPR : 04-19

APRIL 8, 2019

The Chief Environmental Engineer,
Zonal Office, Punjab Pollution Control Board

Focal Point

Jalandhar

Subject: Reply of Notice to issue directions u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended 1988.

Ref:- Your office letter No. 1368 dated 25.03.2019 received on
30.03.2019.

Respected Sir,

With reference letter no-1368 dated 25/03/2019, we are here with
submitting the point wise reply and status.

Kindly acknowledge the receipt

Thanking you

Yours faithfully.

For KUANTUM PAPERS LTD

Rakesh Kumar Dhingra

G.M. (Enviro-General)

(Authorized Signatory)

Copy to:

The Environmental Engineer,
Regional Office, Punjab Pollution Control Board
E 18-A, Focal Point
Hoshiarpur

S. No.	Conditions	Status	Remarks
1	The industry shall engage CPPRI, Saharanpur and get its existing ETP and chemical recovery plant, so as to meet the effluent standards and prescribed under the law and the report be submitted to the PPCB within 21 days.	Complied	Report of CPPRI already submit on 07.03.2019, again enclosed at Annexure -I of ETP & Annexure - II of CRP
2.	The industry shall prepare an Irrigation Management Plan from a consultant of good repute for the whole of the command area available within the industry and outside the industry where treated effluent is utilized onto land for irrigation purpose within 15 days and thereafter get it verified and approved from the Department of Soil & Water Conservation, Punjab	Plan is prepared by under the supervision of retired Kanago & his team & approved by Soil Conservation Department	(Annexure- III)

	and submit the same to the Punjab Pollution Control Board within 21 days.		
3.	The industry shall get the ground water study of the whole command area where the treated effluent is utilized onto land for irrigation purpose from any expert institute in the field of Hydrogeology and submit report to Punjab Pollution Control Board within 21 days.	Complied	Report prepared by Superlinks Water Well Company (Annexure- IV)
4.	The industry shall prepare a standard Operating Procedure (SOP) for the operation of ETP and Chemical Recovery Plant (CRP) and shall maintain the record of operation of ETP on daily basis and shall submit monthly record duly verified by Designated Authority of the industry to the Punjab Pollution Control Board.	Complied	Enclosed as an (Annexure- V & VA)
5.	The industry shall obtain the permission/NOC from Central Ground Water Authority (CGWA) regarding abstraction of fresh water from all the existing tube wells in the industry.	Pending	Permission granted from CGWA 14.07.2009 for two years. Further applied CGWA on 24.09.2011 & reminders are given till 2016. However

			<p>CGWA office informed as on 05.06.2017 vide letter no 913 that our case is currently under process. Again request letter was given on 17.05.2018 on the basis of our letter CGWA officials visited our company on 21.09.2018. Again we requested on 05.03.2019 for renewal of permission for abstraction of ground water. All the letters mentioned above are placed at Annexure IV.</p>
6.	<p>The industry shall install electromagnetic flow meter at the inlet of the ETP before the equalization tank within 21- days.</p>	Complied	<p>V-notch installed, photograph enclosed, placed work order for electromagnetic flow meter is attached (Annexure- VII)</p>
7.	<p>The industry shall commission the Elemental Chlorine Free Bleaching (ECF) in the agro based production by 31-03-2019.</p>	Complied	<p>Plant stand commissioned, trial has been taken. Waiting for consent</p>

			to operate for regular operation.
8.	The unit shall install and commission a new soda recovery plant of 500TPD capacity dry black liquor solids by 31/03/2020.	Will be Complied	Work is under progress
9.	The unit is non-complying with the effluent discharge norms stipulated under E(P) Rules, 1986 for BOD, COD & TSS parameters. The Final treated effluent showed BOD- 106mg/l (against norms of 30mg/l), COD-608 mg/l (against 350mg/l) and TSS- 87 mg/l (against 50mg/l)	Being a social corporate citizens we are complying with all the statutory requirement and is being tested in our own lab on daily basis and also analyzed by recognized lab approved by PPCB on regular interval.	Test report of recognized lab of dated 01.03.2019, 25.03.2019 & 04.04.2019 are enclosed. The samples analyzed in our lab on daily basis are also enclosed. Placed at Annexure- VIII A, VII B & VII C.
10.	The OCEMS display panel at ETP was not showing the ETP outlet discharge flow meters reading during the visit and unit requires to connect or restore the flow meter	In progress	Work order placed (Annexure- IX)

	data connectivity to CPCB server.		
11.	The quality of ground water collected from tube wells of all the three villages showed exceedance w.r.t Acceptable norms for parameter, viz. total hardness, total alkalinity, but they are within the permissible limit of BIS Standards. The calcium and magnesium level at the Pansera village showed exceedance w.r.t acceptance norms, however within the permissible limit.	Complied	Reflected in your letter no 1368, dated 25.03.2019.
12.	The heavy metals in the ground water samples are well within the BIS Standards for drinking water.	Complied	Reflected in your letter no 1368, dated 25.03.2019.
13.	The stack monitoring results started compliance with the emission norms.	Complied	Reflected in your letter no 1368, dated 25.03.2019.
14.	Construction of equalization tank.	Under Construction	Photo attached (Annexure- X)
15.	Rapid/ Flash mixing before tertiary clarifier.	Complied	Photographs enclosed.

ANNEXURE R-19



Punjab Pollution Control Board

Zonal office, Near PSIEC, Water Tank, Focal Point, Jalandhar

Phone No. 0181-2601612

www.ppcb.gov.in Email ID – se@zonal.ppcb@punjab.gov.in

No 1734

Date 15 APR 2019

To

M/s Kauntam Papers Pvt. Ltd.
Village Saila Khurd, Tehsil Garhshankar,
Distt. Hoshiarpur.

Subject: Proceedings of the personal hearing before Worthy Chairman of the Board on 09-4-2019 at Head office Patiala u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988.

Following were Present:-

On behalf of the Board:-

- 1) Er. G.S Majithia, CEE, Jalandhar.
- 2) Er. Harbir Singh, SEE, Jalandhar.
- 3) Er. S.S Matharu, EE, R.O Hoshiarpur.

On behalf of industry:-

Sh. Pavan Khatan (M.D).

The officer of the Board brought out that the industry was granted consent to operate under the Water (Prevention & Control of Pollution) Act 1974 vide No. R14HSPCTOW1520756 dated 29.08.2014, which is valid upto 31.03.2019 for production of 450 TPD of printing paper and operation of a co-generation power plant of capacity 17.5 MW. The industry was served with notice u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 vide no. 5557 dated 6/9/2018 alongwith an opportunity of personal hearing on 18/9/2018, since the industry was found not conforming to the standards in respect of BOD as per SMS alert system received from CPCB for the data depicted by the online continuous effluent monitoring system and there was complaint against the industry regarding water pollution caused by the industry in the area. In the said hearing it was decided as under:-

- 1) The Chief Environmental Engineer, Jalandhar shall Co-ordinate the visit of PBTI to the industry within 7 days and PBTI shall collect and analysis the treated trade effluent sample and submit report to the Punjab Pollution Control Board.
- 2) The Chief Environmental Engineer, Jalandhar shall visit the industry & assess the adequacy of pollution control measures / disposal arrangements made by the industry & shall submit report / recommendations before next date of hearing.
- 3) The further action will be taken out after receipt of the report.

In compliance to decisions taken in the hearing held on 18/9/2018, the industry was visited by the team comprising of officers of the Board and PBTI on 15/11/2018 and the recommendations given by this team are enumerated as under:-

1. The industry should upgrade the existing treatment facility such that the treated effluent meets with the norms prescribed by the Board.
2. The industry shall prepare an Irrigation Management Plan and get its approved from Department of Soil Conservation, Punjab and thereafter to impellent the same in time targeted period.
3. As the treated effluent of the industry is utilize onto land for irrigation purpose a study of ground water table be conducted for general, heavy metals parameters from all the Villages where the effluent is being applied for irrigation purpose.

The industry was again given an opportunity of personal hearing on 5/2/2019 in connection with notice issued to industry u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 and in this said hearing it was decided as under:-

- 1) The industry shall engage CPPRI, Saharanpur and get its existing ETP and chemical recovery plant audited and a proposal be prepared for up-gradation required in exiting ETP and chemical recovery plant, so as to meet the effluent standards as prescribed under the law and the report be submitted to the PPCB within 21-days.

Contd....

M/s Kauntam Papers Pvt. Ltd.

- 2) The industry shall prepare an Irrigation Management Plan from a consultant of good repute for the whole of the command area available within the industry and outside the industry where treated effluent of the industry is utilized onto land for irrigation purpose within 15 days and thereafter get it verified and approved from the Department of Soil & Water Conservation, Punjab and submit the same to the Punjab Pollution Control Board within 21 days.
- 3) The industry shall get the ground water study of the whole command area where the treated effluent is utilized onto land for irrigation purpose from any expert institute in the field of Hydrogeology and submit report to Punjab Pollution Control Board within 21 days.
- 4) The industry shall prepare a Standard Operating Procedure (SOP) for the operation of ETP and Chemical Recovery Plant (CRP) and shall maintain the record of operation of ETP on daily basis and shall submit monthly record duly verified by the Designated Authority of the industry to the Punjab Pollution Control Board.
- 5) The industry shall obtain the permission / NOC from Central Ground Water Authority (CGWA) regarding abstraction of fresh water from all the existing tube-wells in the industry.
- 6) The industry shall install electromagnetic flow meter at the inlet of the ETP before the equalization tank within 21-days.
- 7) The industry shall commission the Elemental Chlorine Free bleaching (ECF) in the agro based production by 31-03-2019.
- 8) The industry shall install and commission a new soda recovery plant of 500 TPD capacity dry black liquor solids by 31/03/2020.

The Hon'ble National Green Tribunal vide order dated 19/12/2018 in the matter of O.A No. 850/2018 titled as Residents of Salla Khurd, Raniala V/s State of Punjab passed the following orders:-

"Let, a joint report be furnished by CPCB and Punjab SPCB on factual aspects of the matter and action taken, if any, to this Tribunal within one month from the date of receipt of copy of this order by email at ngt.filing@gmail.com. The Nodal agency will be PSPCB to the co-ordinate and to comply with the order".

In compliance to said orders of the Hon'ble National Green Tribunal, the industry was visited on 17/1/2019 by the Joint Team comprising of officers of CPCB and PPCB. The report prepared by the Joint Team after conduct of visit to the industry, was placed before Hon'ble NGT. The finding and conclusion drawn by the joint inspection team are given as under:-

1. The Unit is non-complying with the effluent discharge norms stipulated under E(P)Rules, 1986 for BOD, COD & TSS parameters. The final treated effluent showed BOD-106 mg/l (against norms of 30 mg/l), COD- 608 mg/l (against 350 mg/l) and TSS-87 mg/l (against 50 mg/l).
2. The OCEMS display panel at ETP was not showing the ETP outlet discharge flow meters reading during the visit and unit requires to connect or restore the flow meter data connectivity to CPCB server.
3. The quality of ground water collected from tube wells of all three villages showed exceedance w.r.t acceptable norms for parameter, viz, total hardness, total alkalinity, but they are within the permissible limit of BIS Standards. The calcium and magnesium level at the Pansera village showed exceedance w.r.t acceptable norms, however are within the permissible limit.
4. The heavy metals in the groundwater samples are well within the BIS standards for drinking water.
5. The stack monitoring results showed compliance with the emission norms.

The industry vide letter dated 21/2/2019 has asked the Board to furnish a copy of the report of joint team constituted by the Hon'ble NGT and the findings and conclusions drawn by the joint inspection team are mentioned herein above for the ensuring compliance of the same by the industry. The industry has submitted its reply vide letter dated 7/3/2019 in compliance to the decisions taken in the hearing held on 5/2/2019, which has been taken on record by the Board and the technical details mentioned by the CPPRI, Shaharanpur in its report regarding adequacy assessment of existing ETP and study on the adequacy of chemical recovery system will be discussed in this hearing and the industry shall come prepared to discuss the technical details of

said reports in the hearing. The O.A No. 850/2018 titled as Residents of Saila Khurd, Raniala V/s State of Punjab came for hearing before the Hon'ble NGT on 14/3/2019 and the Hon'ble NGT has taken the findings and recommendations of joint team on record and the relevant part of the said order is reproduced as under:-

1. It is clear that violations are serious but action taken is inadequate. Neither any closure has been ordered till compliance nor damages assessed and recovered. PSPCB has, thus, failed to act upon the 'Precautionary' and 'Polluter Pays' principle for preventing further damage and restoring the damage already caused.
2. In view of the above, the PSPCB may now take appropriate action in accordance with law.
3. The Joint Committee may assess the extent of damage caused in monetary terms on settled principles requiring the compensation to be deterrent and adequate to meet the cost of restoration.
4. An action taken report may be furnished by the PSPCB and the Joint Committee in above terms within one month by email at ngt.filing@gmail.com

The industry is violating various provisions of the Water Act (Prevention & Control of Pollution) Act, 1974 intentionally and deliberately.

The representative of the industry submitted a written reply from land officer, Garhshankar vide letter no. 498 dated 8-4-2019 during the hearing which states that the STP of industry regarding discharge of effluent from pipeline laid down in the earth. The industry discharges daily effluent @ 21000m³ and same is used for making of paper. Whereas, @ 17000m³ water of waste of industry is treated in STP to discharge for other villages through laid-down pipelines for irrigation purpose. These water is lifted with pump to discharge many villages for irrigation purpose. This pipeline is discharge of water for irrigation 800 hectare of villages and all farmers of villages used this water for irrigation.

Kuantum papers Ltd was set up in the year-1980 to manufacture writing & printing paper. Presently, the industry is manufacturing writing & printing paper, about 375 TPD against the permitted capacity of 450 TPD. The management implemented the expansion programme covering chemical recovery plant, cogeneration plant, Wood Pulp Street, paper m/c 4, waste paper/purchase pulp, pulping street after obtaining necessary environment clearance from MOF New Delhi in the year 2009 and capacity of plant has been increased to 450 TPD of writing & printing paper. The industry has also obtained environment clearance under ErA notification dated 14/09/2006 from MOEF on 14th June 2017 for enhancing the use of hard wood pulp from 60 TPD to 200 TPD, Chemical recovery plant to manage black liquid solids from 230 TPD to 580 TPD along with installation of cogeneration power plant of 12 MW in addition to earlier capacity of 17.5 MW and discarding 1.5MW power plant. For substitution elemental chlorine with chlorine dioxide, bleaching sequence shall be chlorine dioxide Stage-O, alkali extraction with H₂O₂ and oxygen bleaching and chlorine dioxide Stage-I. This system is also known as multistage bleaching system.

Presently, the industry is consuming 21600 m³ /day of fresh water from 9 existing tube wells (out of total existing 12 tubewells, 3 are not in use). No extra water shall be abstracted by the industry. For the treatment of wastewater, which is about 17000 m³ /day, the industry has provided effluent treatment plant consisting of anaerobic biological treatment system, primary clarifier, aerobic biological treatment system, secondary clarifier and tertiary clarifier. The treated effluent conforming to the standards, is discharged onto land for irrigation & plantation.

Kuantum papers Ltd was set up in the year-1980 to manufacture writing & printing paper. Presently, the industry is manufacturing writing & printing paper, about 375 TPD against the permitted capacity of 450 TPD. The management implemented the expansion programme covering chemical recovery plant, cogeneration plant, Wood Pulp Street, paper m/c 4, waste paper/purchase pulp, pulping street after obtaining necessary environment clearance from MOF New Delhi in the year 2009 and capacity of plant has been increased to 450 TPD of writing & printing paper. The industry has also obtained environment clearance under EIA notification dated 14/09/2006 from MOEF on 14th June 2017 for enhancing the use of hard wood pulp from 60 TPD to 200 TPD, Chemical recovery plant to manage black liquid solids from 230 TPD to 580 TPD along with installation of cogeneration power plant of 12 MW in addition to earlier capacity of 17.5 MW and discarding 1.5MW power plant. For substitution elemental chlorine with chlorine dioxide, bleaching sequence shall be chlorine dioxide Stage-O, alkali extraction with H₂O₂ and oxygen bleaching and chlorine dioxide Stage-1. This system is also known as multistage bleaching system.

Presently, the industry is consuming 21600 m³ /day of fresh water from 9 existing tube wells (out of total existing 12 tubewells, 3 are not in use). No extra water shall be abstracted by the industry. For the treatment of wastewater, which is about 17000 m³ /day, the industry has provided effluent treatment plant consisting of anaerobic biological treatment system, primary clarifier, aerobic biological treatment system, secondary clarifier and tertiary clarifier. The treated effluent, conforming to the standards, is discharged onto land for irrigation & plantation.

The present effluent discharge after three stage treatment is about 17000 m³ per day. The treated effluent of the industry is utilized for irrigation of the fields having an area about 2000 acres of nearby villages. This treated effluent is utilized for irrigation of rice, maize and green fodder in the month of June to October. In the month of November to May, the treated effluent is utilized for irrigation of crops namely wheat, sugarcane and barseen. Besides, the industry has its own plantation area and green area within its premises along with plantation area of the nearby farmers. During non-demand period i.e. 15th November - 15th December (1 month), the treated effluent is utilized for plantation of eucalyptus trees and gardening maintained within the premises of industry (about 110 Acres) and outside of the nearby villages (85 Acres). During same time period some part of treated effluent is also utilized for irrigation into 950 acres out of 2000 acres of land as mentioned above.

The assessment report of CRP and adequacy report of ETP prepared by CPPRI was discussed in detail with regard to following points:-

1. As per assessment report of CRP the industry premises 150-155 TPD of Agro based pulp and 60-65 TPD of wood pulp in its premises and about 76 TPD of readymade pulp is purchased from outside. However, the industry has not submitted any documentary evidence to the effect that its purchases 76 TPD of readymade pulp since the adequacy of the CRP has been checked by the CPPRI considering that the industry purchases said quantity of pulp from outside.
2. As per assessment report of ETP the industry produces 2000 m³ /day of bio gas from the UASB and the COD reduction in the UASB is 964 mg/ltr. Since, 4000 KLD of waste water is treated in the UASB, as per said report. Therefore, the reduction in the COD load comes to which 3856 Kg/day and corresponding to which the maximum generation of bio gas should be 1465 m³/day. Thus, generation of bio gas 2000 m³/day does not seem to be in order.
3. In the assessment report nothing has been mentioned about the treatment of efficiency of each component of the ETP.
4. The volumetric load as mentioned in the report for each component is not matching with each other.

In the SOP of ETP submitted by the industry nothing has been mentioned about the operating parameters to be maintained for effective operation of various components of the ETP.

The ground water study got conducted by the industry from Super Links Water Well Company Mohali was also discussed and it was observed that high concentration of sodium, SAR and RSC has been analyzed in the ground water sample where the treated waste water of the industry is used for irrigation purposes. Therefore, the industry is required to submit its submissions in this regard.

In addition to above the industry is required to comply with the following observations of the Board.

1. The industry has not yet installed EMF at the inlet of the ETP to ascertain as to how much quantity of untreated waste water is treated in the ETP.
2. The industry yet to commission the elemental chlorine free bleaching process as decided in the hearing held on 5/2/2019.
3. The industry is yet to connect the EMF installed at the outlet of ETP with the server of the CPCB & PPCB.
4. As informed by the industry, the secondary sludge is utilized to use it as manure but the industry is yet to get this sludge analyzed for these parameters as mentioned in schedule 2 of the Solid Waste Management Rules 2016 to ascertain the route of its disposal.
5. The industry is yet to intimate as to how much quantity of steam condensate is recovered.
6. The industry is to increase the retention time of the tertiary clarifier for better removal of TSS as suggested by CPPRI.
7. The industry is required to ensure the compliance of SOP framed by the CPCB to use primary sludge of the ETP for manufacturing of mill board.

8. The industry is required to provide properly designed repaired mixing mechanism for proper and complete reaction of chemicals to the biological treated effluent, before tertiary clarifier to reduce COD.
9. The industry required to submit PERT chart for installation of new chemical recovery plant.
10. The industry is required to explore the possibility to provide TRP in BSW section to reduce organic loading as well as Kappa no. of the pulp.

After hearing, the officer of the Board and representative of the industry, the Chairman of the Board decided that:-

- 1) The industry shall critically examine the assessment study report of CRPI chemical recovery plant and ETP conducted by CPPRI and the ground water study conducted by report submitted by the industry, so that the issues and the observations can be discussed in detail.
- 2) The industry shall submit the point wise detailed compliance report of the above mentioned observations raised during the hearing proceedings well before the next date of hearing, so that same be discussed in the next hearing.
- 3) The industry shall be reheard on 24/4/2019 before the Hon'ble Worthy Chairman of the Board.

Samita
12/4/19
For Sr. Environmental Engineer

Endst. No.....

dated.....

A copy of the above is forwarded to Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur for information and necessary action as per the above decision.

ed-
For Sr. Environmental Engineer

ANNEXURE R-20

Kuantum Papers Ltd,
Saila Khurd.

No. : 97/D.B. / Dated: - 10-04-2019

Subject:- Approval of irrigation management Plan

Reference : In this connection to your request dated 07-02-2019.

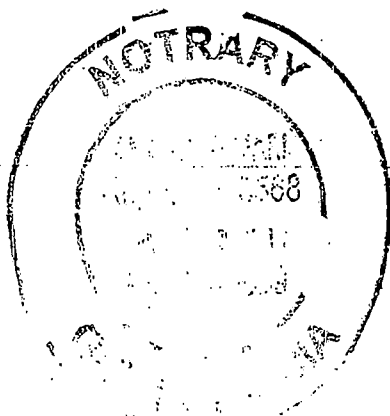
Your request dated 13-02-2019 regarding the above stated reference was received in this office and it is to informed you that the undersigned has got inspected the underground pipeline laid down to different Villages from treatment plant of Kuantum Papers Ltd from Divisional Soil Conservative Officer Garhshankar who has submitted his report as under: -

“Kuantum Papers Ltd” Mill consume 21000 m³/daily (according to the application submitted by Kuantum Papers Ltd) water for manufacturing paper s. out of which 17000 m³/daily (according to the application submitted by Kuantum Papers Ltd) water is polluted is being released by the factory after its treatment through ETP installed in the factory to different Villages for irrigation. This water is supplied to farmers of different Villages through underground pipes after lifting (with five pumps) set with heavy method (only one) through these underground pipeline total 800 Hac. Area is being irrigated.

After consulting the farmers of different Villages they informed that the beneficiary farmers wants to take water from Kuantum Papers Ltd. to irrigate their fields.

Keeping in view the demand of farmers of different Villages (having no other source of irrigation) the underground pipe line from ETP are correct but the Kuantum Papers Ltd hereby directed that when the demand of water to farmer is decreased then (no demand period/daily rainy season) to use the water in proper manner the area under irrigation should be increased and it shall be the personal responsibility of Kuantum Papers Ltd to supply the good quality of water through the underground pipe line for crops/ human life or for use of other purposes and it shall be your responsibility to maintain good quality of water after its inspection/testing from time to time. It is also make clear that this department shall not be responsible regarding the equality of water.

Sd/-
Divisional Soil Conservative Officer,
Hoshiarpur.



Translation of the Documents Produced
ATTESTED

Garhshankar
NOTARY Garhshankar, India
TRUE COPY

20 APR 2019

SOIL AND WATER CONSERVATION DEPARTMENT, PUNJAB

Office: Divisional Soil Conservative Office, Hoshiarpur
Distt Admin Complex Chandigarh Road, Hoshiarpur Room Number 440-444

Phone No.: 01882-240192 E - Mail: dscohspl@gmail.com

To

Kuantum Papers Ltd,

Saila Khurd.

No. : 97/D.B. /Dated: -10-4-2019

Subject:-Approval of irrigation management Plan

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Sd/-

Divisional Soil Conservative Officer,

Hoshiarpur

6073 A



Ref :

Dt : 23.04.2019

Kvantum Papers Ltd
The Paper Makers

ANNEXURE R-21

The Sr. Environmental Engineer
Zonal Office, Punjab Pollution Control Board
Focal Point
Jalandhar

Subject: Proceeding of personal hearing before Worthy Chairman of the Board on 9.04.2019 at head office Patiala u/s 33-A of Water (prevention & Control of Pollution) Act, 1974 as amended in 1988

Dear Sir,

With reference to the above subject & your letter No. 1734 dated 15th April 2019, we hereby submit our reply to the various points raised:

A: Notice was given to our industry vide your letter No.5557 dtd.6.9.2018 along with an opportunity of personal hearing on 18.09 2018 that "company was found not confirming the standard in respect of BOD as per SMS alert". We submitted our reply that the drains are open any foreign material can stick with the probe that will give the false signal ,after cleaning the probe the system is back to normal. Here we wish to inform you that such a big plant will not be normal in 5 minute time. It clear indicates these are erroneous ready. Reply of these we have already submitted to your office.

After hearing it was decided that the team of PPCB official along with PBTI official will visit the Industry within 7 days to asses:-

- To check the existing treatment facility such that treated effluent should meet the prescribed norms
- The industry shall prepare the Irrigation management plan & get it approved from department of soil conservation Punjab
- The treated water is to utilize onto land for irrigation

Ravi Bhatia

The industry was visited /inspected by 109 team on 15.11.2018. On the basis of inspection again personal hearing was given to the Industry on 5.2.2019 & some directions were issued on the basis of hearing. Those directions were fulfilled & reply was furnished vide our letter dtd 7.03.2019

B The Hon'ble National Green Tribunal vide order dated 19.12.2018 in a matter of O.A.No.850/2018 titled as Residents of Saila Khurd,Raniala V/s State of Punjab in which asked that joint inspection by CPCB & SPCB on factual aspects of the matter. Joint team of CPCB & SPCB visited the industry on 17.1.2019. On the basis of joint visit and hearing by hon'ble NGT on 14.03.2019, industry has replied vide letter dtd 8.04.2019 & personal hearing on 9.4.2019

Point discussed during hearing on 9.4.2019 & mentioned in letter dtd 15.04.2019, our point wise reply as below,

1. Company uses imported hard wood, imported soft wood & indigenous bagasse pulp to supplement fiber for producing paper. During the year 2018-19 company had purchased following quantities.

a. Imported Hardwood Pulp -	8829.75 MT
b. Imported Soft Wood Pulp -	12228.71 MT
c. Indigenous Bagasse Pulp -	2652.37 MT

Documentary Evidence enclosed as Annexure – 1

2. Bio Gas Generation from UASB Reactor on an average is 2000m³/Day, which is approximately 0.4 m³/Kg of COD reduction. CPPRI taken data for one day only.
3. **3 & 4 -CPPRI Adequacy Report:** While discussing this report during the hearing it was stated that the Adequacy report that we have submitted is inadequate, as it does not give details of component wise parameters and efficiencies. We approached CPPRI again for the same, and they responded that the kind of Report which is now being asked is a 'Performance Report', whereas previously PPCB had asked us only for 'Adequacy Report' which the Company had accordingly submitted vide our letter Dt. 8th March addressed to Chief Environmental Engineer-Jalandhar with CC to Environmental Engineer-Hoshiarpur.

We have contacted CPPRI again but as they were engaged in election duties so they were not able to give us date not before 16th April, CPPRI team collected the samples on 16th/17th April from our mill and report likely to be ready by 26th April, accordingly we will submit the Performance Report by 29th April'19 .

5. **Revised SOP for ETP Operation:** Revised SOPs as per good practices of Effluent Treatment Plant are attached as Annexure-2.
6. **Groundwater Reports:** Test report says that Ground water samples are within the norms for all the locations except Rampur Village. Here we wish to inform you that village Rampur is on upstream location beyond railway track and our effluent is never discharge in that area. Ground water slope is from North-East to South-West in our factory area. It is pertinent to mention here that we were advised by the PPCB to get sampling done both in Upstream and Downstream location to establish the impact on ground water quality by our treated effluent. It is to be recorded that Rampur Village is on Upstream location, whereas RSC Values are within range for all downstream location, which clearly establish that our treated water is infect bettering the quality of water in the area. At present our treated effluent going to near wise villages for cultivation by 6 pipes. Details of cultivated by each line is enclosed as annexure 3
7. **Influent flow measurement device:** installation of EMF at Inlet of ETP is not possible as the reputed supplier of EMF regretted for such application. However, our Company has located latest technology of Parshall Flume with Ultrasonic Transmitter. Order for the same had been placed for Siemens Make System. Technical Literature and Order Copy enclosed as Annexure-4.
8. ECF Bleaching for Agro Street Trials have been completed and now waiting for 'Consent' to operate from PPCB. Erection of ECF bleaching for Wood Street is in progress shall be commissioned by March'2020.
9. **Connecting Outlet flow meter with CPCB directly:** Instrumentation for OCEMS display panel of all ETP outlet discharge flow meters already ordered, this will be connected to CPCB server. PO is attached as Annexure-5.

10. **Secondary Sludge:** It was discussed during hearing to test Secondary Sludge for suitability for different Crops. Secondary Sludge is in general considered fit for soil. The test report dated 22.04.2019, as per schedule 2 of solid waste management rule 2016, Envirotech laboratory Mohali is attached as Annexure 5. Report says the secondary sludge is suitable as organic compost for crops
11. **Condensate Recovery and uses of foul condensate:** With respect to the questioning on these points, the Company replied during Hearing that Condensate Recovery is 60% & foul condensate is being used in system, and that the condensate is being consumed in the mill, as a part of fresh water saving. Details attached as Annexure-6
12. **Retention time of Tertiary Clarifier** : We have hired a consultant M/S Orden Platz for Possible solution to reduce TSS. However company is taking in- process correction to reduce TSS inlet to Primary Clarifier. In house study is also being done for addition of Coagulant & Flocculent to reduce TSS.
13. **Primary Sludge Manufacturing of Board.** As per SOP of CPCB we are consuming our ETP sludge for using Board. Quantity produces in 2018-2019 is 7091.7 MT. Submitted in Your Regional office Hoshiarpur Vide our letter dtd..3rd April-2019. Attached as Annexure -7, SOP for Board Mill operation enclosed as annexure 7 A.
14. **Flash Mixer before Tertiary Clarifier:** We have installed a flash Mixer between Secondary & Tertiary. Photographs enclosed as Annexure -8
15. **Bar Chart of New Recovery Plant** – Enclosed as Annexure -9
16. **Twin Roll Press vs Vacuum Drum Washer:** During the Hearing it was pointed why Twin Roll Wash Press had not been installed by us. We are enclosing a detailed note as Annexure-8 giving unique features of our installed Brown Stock Drum Washers, procured from M/s GL&V, who are global leader for Vacuum Drum Washers. It is also to be noted that CPCB Charter-2015 for Ganga River Basin also specifies Efficient Filter or Press for Pulp Washing, and any particular component cannot be mandated.

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We would wish to inform you that we have analyzed the treated effluent from the reputed Lab Sophisticated Analytical Instruments Laboratories Society (Thapar Technology, Patiala) and Environ Tech Mohali approved by PPCB and latest results copy are enclosed as an Annexure -10. All the Parameters are within the stipulated norms by PPCB.

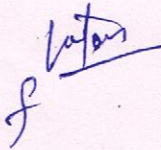
In compliance with all the directions and requirements given by PPCB, we are submitting details as above.

Thanking you,

Sincerely

For Kuantum Papers Ltd

R.K. Dhingra



General Manager (Environ-General)

Encl: Annexures as above

CC: Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur for information and necessary action.

44321
\\TRUE COPY\\



Punjab Pollution Control Board

Zonal office, Near PSIEC, Water Tank, Focal Point, Jalandhar

Phone No. 0181-2601612

www.ppcb.gov.in Email ID – seezojal.ppcb@punjab.gov.in

No 1936

Date 25 APR 2019

To

M/s Kauntam Papers Pvt. Ltd.
Village Salla Khurd, Tehsil Garhshankar,
Distt. Hoshiarpur

Subject: Proceedings of the personal hearing before Worthy Chairman of the Board on 24/4/2019 at PPCB, Regional office, Mohali u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988-.

Following were present :

On behalf of the Board :

Er. G.S. Majithia, Chief Environmental Engineer, Jalandhar.
Er. S.S. Matharu, Environmental Engineer, Regional Office, Hoshiarpur.

On behalf of the Industry :

Sh.D.S. Sandhawalia, Director
Sh. R.P. Puri, Associate President
Sh. Manoj Aggarwal, Sr. Vice President
Sh. R.K. Dhingra, General Manager (Environment)

The officers of the Board brought out that the industry was granted consent to operate under the Water (Prevention & Control of Pollution) Act 1974 vide No. R14HSPCTOW1520756 dated 29.08.2014, which is valid upto 31.03.2019 for production of 450 TPD of printing paper and operation of a co-generation power plant of capacity 17.5 MW. The industry was served with notice u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 vide no. 5557 dated 6/9/2018 alongwith an opportunity of personal hearing on 18/9/2018, since the industry was found not conforming to the standards in respect of BOD as per SMS alert system received from CPCB for the data depicted by the online continuous effluent monitoring system and there was complaint against the industry regarding water pollution caused by the industry in the area. In the said hearing it was decided as under:-

- 1) The Chief Environmental Engineer, Jalandhar shall Co-ordinate the visit of PBTI to the industry within 7 days and PBTI shall collect and analysis the treated trade effluent sample and submit report to the Punjab Pollution Control Board.
- 2) The Chief Environmental Engineer, Jalandhar shall visit the industry & asses the adequacy of pollution control measures / disposal arrangements made by the industry & shall submit report / recommendations before next date of hearing.
- 3) The further action will be taken out after receipt of the report.

It was also informed that in compliance to decisions taken in the hearing held on 18/9/2018, the industry was visited by the team comprising of officers of the Board and PBTI on 15/11/2018 and the recommendations given by this team are enumerated as under:-

1. The industry should upgrade the existing treatment facility such that the treated effluent meets with the norms prescribed by the Board.
2. The industry shall prepare an Irrigation Management Plan and get its approved from Department of Soil Conservation, Punjab and thereafter to impellent the same in time targeted period.
3. As the treated effluent of the industry is utilize onto land for irrigation purpose a study of ground water table be conducted for general, heavy metals parameters from all the Villages where the effluent is being applied for irrigation purpose.

The industry was again given an opportunity of personal hearing on 5/2/2019 in connection with notice issued to industry u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 and in this said hearing it was decided as under:-

- 1) The industry shall engage CPPRI, Saharanpur and get its existing ETP and chemical recovery plant audited and a proposal be prepared for up-gradation required in exiting ETP and chemical recovery plant, so as to meet the effluent standards as prescribed under the law and the report be submitted to the PPCB within 21-days.
- 2) The industry shall prepare an Irrigation Management Plan from a consultant of good repute for the whole of the command area available within the industry and outside the industry where treated effluent of the industry is utilized onto land for irrigation purpose within 15 days and thereafter get it verified and approved from the Department of Soil & Water Conservation, Punjab and submit the same to the Punjab Pollution Control Board within 21 days.
- 3) The industry shall get the ground water study of the whole command area where the treated effluent is utilized onto land for irrigation purpose from any expert institute in the field of Hydrogeology and submit report to Punjab Pollution Control Board within 21 days.
- 4) The industry shall prepare a Standard Operating Procedure (SOP) for the operation of ETP and Chemical Recovery Plant (CRP) and shall maintain the record of operation of ETP on daily basis and shall submit monthly record duly verified by the Designated Authority of the industry to the Punjab Pollution Control Board.
- 5) The industry shall obtain the permission / NOC from Central Ground Water Authority (CGWA) regarding abstraction of fresh water from all the existing tube-wells in the industry.
- 6) The industry shall install electromagnetic flow meter at the inlet of the ETP before the equalization tank within 21-days.
- 7) The industry shall commission the Elemental Chlorine Free bleaching (ECF) in the agro based production by 31-03-2019.
- 8) The industry shall install and commission a new soda recovery plant of 500 TPD capacity dry black liquor solids by 31/03/2020.

The officers of the Board also stated that the Hon'ble National Green Tribunal vide order dated 19/12/2018 in the matter of O.A No. 850/2018 titled as Residents of Saila Khurd, Raniala v/s State of Punjab passed the following orders:-

"Let, a joint report be furnished by CPCB and Punjab SPCB on factual aspects of the matter and action taken, if any, to this Tribunal within one month from the date of receipt of copy of this order by email at nqt.filing@gmail.com. The Nodal agency will be PSPCB to the co-ordinate and to comply with the order".

In compliance to said orders of the Hon'ble National Green Tribunal, the industry was visited on 17/1/2019 by the Joint Team comprising of officers of CPCB and PPCB. The report prepared by the Joint Team after conduct of visit to the industry, was placed before Hon'ble NGT. The finding and conclusion drawn by the joint inspection team are given as under:-

1. The Unit is non-complying with the effluent discharge norms stipulated under E(P)Rules, 1986 for BOD, COD & TSS parameters. The final treated effluent showed BOD-106 mg/l (against norms of 30 mg/l), COD- 608 mg/l (against 350 mg/l) and TSS-87 mg/l (against 50 mg/l).
2. The OCEMS display panel at ETP was not showing the ETP outlet discharge flow meters reading during the visit and unit requires to connect or restore the flow meter data connectivity to CPCB server.
3. The quality of ground water collected from tube wells of all three villages showed exceedance w.r.t acceptable norms for parameter, viz, total hardness, total alkalinity, but they are within the permissible limit of BIS Standards. The calcium and magnesium level at the Pansera village showed exceedance w.r.t acceptable norms, however are within the permissible limit.
4. The heavy metals in the groundwater samples are well within the BIS standards for drinking water.
5. The stack monitoring results showed compliance with the emission norms.

The industry vide letter dated 21/2/2019 has asked the Board to furnish a copy of the report of joint team constituted by the Hon'ble NGT and the findings and conclusions drawn by the joint inspection team are mentioned herein above for the ensuring compliance of the same by the industry.

The industry had submitted its reply vide letter dated 7/3/2019 in compliance to the decisions taken in the hearing held on 5/2/2019, which has been taken on record by the Board and the technical details mentioned by the CPPRI, Shaharanpur in its report regarding adequacy assessment of existing ETP and study on the adequacy of chemical recovery system will be discussed in this hearing and the industry shall come prepared to discuss the technical details of said reports in the hearing.

The O.A No. 850/2018 titled as Residents of Saila Khurd, Raniala V/s State of Punjab came for hearing before the Hon'ble NGT on 14/3/2019 and the Hon'ble NGT has taken the findings and recommendations of joint team on record and the relevant part of the said order is reproduced as under:-

1. *It is clear that violations are serious but action taken is inadequate. Neither any closure has been ordered till compliance nor damages assessed and recovered. PSPCB has, thus, failed to action upon the "Precautionary" and "Polluter Pays" principle for preventing further damage and restoring the damage already caused.*
2. *In view of the above, the PSPCB may now take appropriate action in accordance with law.*
3. *The Joint Committee may assess the extent of damage caused in monetary terms on settled principles requiring the compensation to be deterrent and adequate to meet the cost of restoration.*
4. *An action taken report may be furnished by the PSPCB and the Joint Committee in above terms within one month by email at nqt.filing@gmail.com*

The industry is violating various provisions of the Water Act (Prevention & Control of Pollution) Act, 1974 intentionally and deliberately.

The representative of the industry submitted a written reply from land officer, Garhshankar vide letter no. 498 dated 8-4-2019 during the hearing which state that the ask to inspection of STP of industry regarding discharge of effluent from pipeline laid down in the earth. The industry discharge daily effluent @ 21000m³ and same is used for making of paper. Whereas, @ 17000m³ water of waste of industry and treated in STP to discharge for other villages through laid down pipelines for irrigation purpose. These water lifted with pump to discharges many villages for irrigation purpose. This pipelines is discharge of water for irrigation 800 hectare of villages and all farmers of villages used this water for irrigation.

Kwantum papers ltd was set up in the year-1980 to manufacture writing & printing paper. Presently, the industry is manufacturing writing & printing paper , about 375 TPD against the permitted capacity of 450 TPD. The management implemented the expansion programme covering chemical recovery plant, cogeneration plant, Wood Pulp Street, paper m/c 4, waste paper/purchase pulp. pulping street after obtaining necessary environment clearance from MOF New Delhi in the year 2009 and capacity of plant has been increased to 450 TPD of writing & printing paper. The industry has also obtained environment clearance under ErA notification dated 14/09/2006 from MOEF on 14th June 2017 for enhancing the use of hard wood pulp from 60 TPD to 200 TPD, Chemical recovery plant to manage black liquid solids from 230 TPD to 580 TPD along with installation of cogeneration power plant of 12 MW in addition to earlier capacity of 17.5 MW and discarding 1.5MW power plant. For substitution elemental chlorine with chlorine dioxide, bleaching sequence shall be chlorine dioxide Stage-e-O, alkali extraction with H₂O₂ and oxygen bleaching and chlorine dioxide Stage-I. This system is also known as multistage bleaching system.

Presently, the industry is consuming 21600 m³ /day of fresh water from 9 existing tube wells (out of total existing 12 tubewells, 3 are not in use). No extra water shall be abstracted by the industry. For the treatment of wastewater, which is about 17000 m³ /day, the industry has provided effluent treatment plant consisting of anaerobic biological treatment system, primary clarifier, aerobic biological treatment system, secondary clarifier and tertiary clarifier. The treated effluent conforming to the standards, is discharged onto land for irrigation & plantation.

The present effluent discharge after three stage treatment is about 17000 m³ per day. The treated effluent of the industry is utilized for irrigation of the fields having an area about 2000 acres of nearby villages. This treated effluent is utilized for irrigation of rice, maize and green fodder in the month of June to October. In the month of November to May, the treated effluent is utilized for irrigation of crops namely wheat, sugarcane and barseen. Besides, the industry has its own plantation area and green area within its premises along with plantation area of the nearby farmers. During no-demand period i.e. 15th November - 15th December (1 month), the treated effluent is

utilized for plantation of eucalyptus trees and gardening maintained within the premises of industry (about 110 Acres) and outside of the nearby villages (85 Acres). During same time period some part of treated effluent is also utilized for irrigation into 950 acres out of 2000 acres of land as mentioned above.

During hearing on 9.4.2019, the assessment report of CRP and adequacy report of ETP prepared by CPPRI was discussed in detail with regard to following points:-

1. As per assessment report of CRP the industry premises 150-155 TPD of Agro based pulp and 60-65 TPD of wood pulp in its premises and about 76 TPD of readymade pulp is purchased from outside. However, the industry has not submitted any documentary evidence to the effect that its purchases 76 TPD of readymade pulp since the adequacy of the CRP has been checked by the CPPRI considering that the industry purchases said quantity of pulp from outside.
2. As per assessment report of ETP the industry produces 2000 m³/day of bio gas from the UASB and the COD reduction in the UASB is 964 mg/ltr. Since, 4000 KLD of waste water is treated in the UASB, as per said report. Therefore, the reduction in the COD load comes to which 3856 Kg/day and corresponding to which the maximum generation of bio gas should be 1465 m³/day. Thus, generation of bio gas 2000 m³/day does not seem to be in order.
3. In the assessment report nothing has been mentioned about the treatment of efficiency of each component of the ETP.
4. The volumetric load as mentioned in the report for each component is not matching with each other.

It was pointed out that the SOP of ETP submitted by the industry nothing has been mentioned about the operating parameters to be maintained for effective operation of various components of the ETP. The ground water study got conducted by the industry from Super Links Water Well Company Mohali was also discussed and it was observed that high concentration of sodium, SAR and RSC has been analyzed in the ground water sample where the treated waste water of the industry is used for irrigation purposes. Therefore, during hearing on 9.4.2019, it was pointed out that the industry is required to submit its submissions in the above regard. In addition to above the industry is required to comply with the following observations of the Board.

1. The industry has not yet installed EMF at the inlet of the ETP to ascertain as to how much quantity of untreated waste water is treated in the ETP.
2. The industry yet to commission the elemental chlorine free bleaching process as decided in the hearing held on 5/2/2019.
3. The industry is yet to connect the EMF installed at the outlet of ETP with the server of the CPCB & PPCB.
4. As informed by the industry, the secondary sludge is utilized to use it as manure but the industry is yet to get this sludge analyzed for these parameters as mentioned in schedule 2 of the Solid Waste Management Rules 2016 to ascertain the route of its disposal.
5. The industry is yet to intimate as to how much quantity of steam condensate is recovered.
6. The industry is to increase the retention time of the tertiary clarifier for better removal of TSS as suggested by CPPRI.
7. The industry is required to ensure the compliance of SOP framed by the CPCB to use primary sludge of the ETP for manufacturing of mill board.
8. The industry is required to provide properly designed repaired mixing mechanism for proper and complete reaction of chemicals to the biological treated effluent, before tertiary clarifier to reduce COD.
9. The industry required to submit PERT chart for installation of new chemical recovery plant.
10. The industry is required to explore the possibility to provide TRP in BSW section to reduce organic loading as well as Kappa no. of the pulp.

After hearing on 9.4.2019, the officer of the Board and representative of the industry were heard and on the basis of the facts as stated above, the Chairman of the Board decided that:-

- 1) The industry shall critically examine the assessment study report of CRPI chemical recovery plant and ETP conducted by CPPRI and the ground water study conducted by report submitted by the industry, so that the issues and the observations can be discussed in detail.

- 2) The industry shall submit the point wise detailed compliance report of the above mentioned observations raised during the hearing proceedings well before the next date of hearing, so that same be discussed in the next hearing.
- 3) The industry shall be reheard on 24/4/2019 before the Hon'ble Worthy Chairman of the Board.

The industry was issued notice u/s 33-A of the Water Act, 1974 vide no. 1368-69 dated 25.3.2019 to appear before the Chairman of the Board on 9.4.2019 at Patiala, which was postponed to 24.4.2019 alongwith the change of venue of hearing to R.O., Mohali.

The representatives of the industry during hearing on 24.4.2019 submitted a written reply vide their letter UCI:SKG:2019-2020 dated 24.4.2019 stating that :-

1. The Company uses imported hard wood, imported soft wood & indigenous bagasse pulp to supplement fiber for producing paper. During the year 2018-19 company had purchased following quantities.

a. Imported Hardwood Pulp	-	8829.75MT
b. Imported Soft Wood Pulp	-	12228.71MT
c. Indigenous Bagasse Pulp	-	2652.37MT
2. Bio Gas Generation from UASB Reactor on an average is 2000m³/Day, which is approximately 0.4 m³/Kg of COD reduction. CPPRI taken data for one day only.
3. **For CPPRI Adequacy Report:** They approached CPPRI again for the same and they responded that the kind of Report which is now being asked is a 'Performance Report', whereas previously PPCB had asked us only for 'Adequacy Report' which the Company had accordingly submitted vide their letter dated 8th March addressed to Chief Environmental Engineer-Jalandhar with CC to Environmental Engineer-Hoshiarpur. They have contacted CPPRI again but as they were engaged in election duties so they were not able to give them date not before 16th April, CPPRI team collected the samples on 16th/17th April from our mill and report likely to be ready by 26th April, accordingly they will submit the Performance Report by 29th April'19.
5. **Revised SOP for ETP Operation:** Revised SOPs as per good practices of Effluent Treatment Plant are attached.
6. **Groundwater Reports:** Test report says that Ground water samples are within the norms for all the locations except Rampur Village. Here they wish to inform you that village Rampur is on upstream location beyond railway track and our effluent is never discharge in that area. Ground water slope is from North-East to South-West in our factory area. It is pertinent to mention here that we were advised by the PPCB to get sampling done both in Upstream and Downstream location to establish the impact on ground water quality by our treated effluent. It is to be recorded that Rampur Village is on Upstream location, whereas RSC Values are within range for all downstream location, which clearly establish that our treated water is infact bettering the quality of water in the area. At present the treated effluent going to near wise villages for cultivation by 6 pipes. Details of cultivated by each line is enclosed as annexure 3
7. **Influent flow measurement device:** Installation of EMF at Inlet of ETP is not possible as the reputed supplier of EMF regretted for such application. However, the Company has located latest technology of Parshall Flume with Ultrasonic Transmitter. Order for the same had been placed for Siemens Make System. Technical Literature and Order Copy enclosed.
8. ECF Bleaching for Agro Street Trials have been completed and now waiting for 'Consent' to operate from PPCB. Erection of ECF bleaching for Wood Street is in progress shall be commissioned by March'2020.
9. **Connecting Outlet flow meter with CPCB directly:** Instrumentation for OCEMS display panel of all ETP outlet discharge flow meters already ordered, this will be connected to CPCB server. PO is attached.
10. **Secondary Sludge:** It was discussed during hearing to test Secondary Sludge for suitability for different Crops. Secondary Sludge is in general considered fit for soil. The test report dated 22.04.2019, as per schedule 2 of solid waste

management rule 2016, Envirotech laboratory Mohali is attached. Report says the secondary sludge is suitable as organic compost for crops.

11. **Condensate Recovery and uses of foul condensate:** With respect to the questioning on these points, the Company replied during Hearing that Condensate Recovery is 60% & foul condensate is being used in system, at that the condensate is being consumed in the mill, as a part of fresh water saving. Details attached
12. **Retention time of Tertiary Clarifier :** They have hired a consultant M/s OrdenPlatz for Possible solution to reduce TSS. However company is taking in process correction to reduce TSS inlet to Primary Clarifier. In house study is also being done for addition of Coagulant & Flocculent to reduce TSS.
13. **Primary Sludge Manufacturing of Board.** As per SOP of CPCB we are consuming the ETP sludge for using Board. Quantity produced in 2018-2019 is 7091.7 MT. Submitted in Your Regional office Hoshiarpur Vide our letter dtd..3 April-2019. Attached. SOP for Board Mill operation enclosed.
14. **Flash Mixer before Tertiary Clarifier:** They have installed a flash Mixer between Secondary & Tertiary. Photographs enclosed.
15. **Bar Chart of New Recovery Plant –** Enclosed with the report.
16. **Twin Roll Press vs Vacuum Drum Washer:** They have enclosed a detailed note giving unique features of our installed Brown Stock Drum Washers procured from M/s GL&V, who are global leader for Vacuum Drum Washers.

The officers of the Board present in the hearing informed as under :

- 1) The industry has installed capacity of 450 TPD of writing and printing paper but on an average the production capacity remains about 375 TPD.
- 2) For production of 375 TPD of writing and printing paper, the industry produces 150-155 TPD of agro pulp by using agro residue such as bagasse / sarkanda / Kahi grass / wheat straw etc. and 60-65 TPD of wood pulp. In addition the industry procures about 70-75 TPD of ready made pulp.
- 3) From production of 150-155 TPD of agro based pulp, about 210 TPD of black liquor solids are generated and installed capacity of recovery boiler in terms of solids is 230 TPD. Further, the capacity of the chemical recovery boiler in terms of pulp production at 95% recovery efficiency is 165 TPD. Therefore, it is clear that the capacity of the recovery boiler is at par with production of agro based pulp. Since, the industry takes 5-6 shut downs of recovery boiler in a year for cleaning purpose and there may be mechanical fault in this system at any point of time, thus, the industry in such a situation collects the black liquor in the collection tanks and treat it in the lignin recovery plant. However, when lignin plant is operated, wastewater of high COD is generated which causes shock loading on the effluent treatment plant and disturbs the operation of the same. Therefore, in order to ensure that the entire effluent treatment plant runs in a proper manner and no wastewater having high COD goes to the ETP, there is need to curtail the production capacity of the industry atleast by 10% and to restrain the operation of lignin recovery plant which produces high COD effluent, despite the fact that lignin recovery plant is a stand by arrangement to handle the black liquor.
- 4) From production of 65 TPD of wood based pulp, the total generation of black liquor solids is about 99 TPD. Thus, it is clear that the capacity of chemical recovery boiler is adequate as mentioned in the study carried out by Central Pulp & Paper Research Institute, Saharanpur regarding adequacy of chemical recovery plant.

The submissions made by the representatives of the industry during the hearing which are mentioned herein above, were discussed in detail. It was also informed by the offices of the Board that a Bank Guarantee of Rs. 10.00 lakhs (Rupees Ten Lakhs Only) has already been submitted by the industry as an assurance to comply with the provisions of the Water Act, 1974.

After hearing the representatives of the industry and officers of the Board and considering material facts on record, the Chairman of the Board decided as under :

- (i) In order to ensure proper and effective operation of the Effluent Treatment Plant and chemical recovery plant and considering the violations mentioned herein above, the industry is hereby directed to curtail 10% production

- capacity i.e. it shall produce not more than 337.5 TPD on an average (375 – 37.5 TPD). Directions in this regard u/s 33-A of the Water Act, 1974 shall be issued separately.
- (ii) The EE, Regional office, Hoshiarpur is directed to seal the Lignin Precipitation Plant (LP²) of the industry with immediate effect and shall report in this regard to Zonal Office, Jalandhar within 7 days. This may also be made a part of the Directions to be issued to the industry u/s 33-A of the Water Act, 1974.
 - (iii) The EE, Regional Office, Hoshiarpur is directed to encash the Bank Guarantee of Rs. 10.00 lakhs (Rupees Ten Lakhs Only), which has already been submitted by the industry to the Board as an assurance to comply with the provisions of the Water Act, 1974.
 - (iv) The industry is given a time period of three months from the date of hearing to remove all the discrepancies / observations of the Board made above and to ensure the compliance of commitments made by the industry orally during the hearing / submitted in writing vide letter dated 24.4.2019.
 - (v) The industry is directed to furnish a fresh bank guarantee of Rs. 50.00 lakhs (Rupees Fifty Lakhs Only) to the Board within 7 days as an assurance to comply with the provisions of Water Act, 1974 and to comply with the decisions of the personal hearing including the submissions made orally during the hearing / submitted in writing vide letter dated 24.4.2019. In case, the industry fails to make the compliance of the observations mentioned above, within a stipulated period of three months, the BG of Rs. 50.00 lakhs shall be encashed and further action under the Water Act, 1974 shall be initiated.
 - (vi) The Board shall grant the application for consent to operate under the Water Act, 1974 and Air Act, 1981 submitted by the industry, for curtailed production of 337.5 TPD of writing and printing paper for a period of three months subject to the suitable conditions.
 - (vii) The Senior Environmental Engineer, Zonal Office, Jalandhar shall take up matter with NIT, Jalandhar for carrying out hydro geological study at various locations where the treated wastewater is utilized by the industry for irrigation of agricultural fields including in the premises of the unit and on the upstream side of the industry as a reference sample for getting a study conducted within a period of 3 months, to ascertain the effect on the ground water quality due to utilization of treated wastewater for irrigation purposes. The entire cost to be incurred on this study shall be borne by the industry. EE RO, Hoshiarpur shall act as a coordinator for getting conducted this study.
 - (viii) It was made clear to the representatives of the industry present in the hearing that in case the industry fails to make the compliance of the above mentioned decisions of the hearing, action as deemed fit under the provisions of the Water Act, 1974 shall be taken without affording any further opportunity / notice.

Endst. No.....

For Sr. Environmental Engineer
25/4/19
 dated.....

A copy of the above is forwarded to Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur for information and necessary action as per the above decision.

-sd-
 For Sr. Environmental Engineer

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ANNEXURE R-23

Punjab Pollution Control Board

Zonal Office, Near PSIEC, Water Tank, Focal Point, Jalandhar

Phone No. 0181-2601612 www.ppcb.gov.in Email ID – seezojal.ppcb@punjab.gov.in

No 1944

Date 25/04/19

To

M/s Kuantam Papers Ltd.,

Village Saila Khurd, Tehsil Garhshankar,

Distt Hoshiarpur

Subject: Directions u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974.

Ref: Z.O letter no. 1936 dated 25-4-2019

Whereas, it is obligatory on the part of industry to obtain the 'consent to operate' of the Board u/s 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act, 1981, for discharge of effluent/ emission from its premises and to operate on outlet.

And whereas, it is mandatory on the part of industry to install proper and adequate Water & Air Pollution Control Device so that the concentration of various pollutants conforms to the effluent/ emission standards prescribed by the Board.

And whereas, the industry was granted consent to operate under the Water (Prevention & Control of Pollution) Act, 1974 vide No. R14HSPCTOW1520756 dated 29.08.2014, which is valid upto 31.03.2019

for production of 450 TPD of printing paper and operation of a co-generation power plant of capacity 17.5 MW:

And whereas, the industry was served with the notice u/s 33-A Water (Prevention & Control of Pollution) Act, 1974 vide no. 5557 dated 6/9/2018 alongwith an opportunity of personal hearing on 18/9/2018, since the industry was found not conforming to the standards in respect of BOD as per SMS alert system received from CPCB for the data depicted by the online continuous effluent monitoring system and there was complaint against the industry regarding water pollution caused by the industry in the area.

And whereas, the industry was given an opportunity of personal hearing on 5/2/2019 in connection with notice issued to industry u/s 33-A Water (Prevention & Control of Pollution) Act, 1974 and in this said hearing it was decided as under:-

1. The industry shall engage CPPRI, Saharanpur and get its existing ETP and chemical recovery plant audit and a proposal be prepared for up-gradation required in existing ETP and Chemical recovery plant, so as to meet the effluent standards as prescribed under the law and the report be submitted to the PPCB within 21 days.
2. The industry shall prepare an irrigation Management Plan from a consultant of good repute for the whole of the command area available within the industry and outside the industry where treated effluent of the industry is utilized onto land for irrigation purpose with 15 days and thereafter get it verified and approved from the Department of Soil & Water Conservation, Punjab and submit the same to the Punjab Pollution Control Board within 21 days.

3. The industry shall get the ground water study of the whole command area where the treated effluent is utilized onto the land for irrigation purpose from any expert institute in the field of Hydrogeology and submit report to Punjab Pollution Control Board within 21 days.
4. The industry shall prepare a Standard Operating Procedure (SOP) for the operation of ETP and Chemical Recovery Plant (CRP) and shall maintain the record of operation of ETP on daily basis and shall submit monthly record duly verified by the Designated Authority of the industry to the Punjab Pollution Control Board.
5. The industry shall obtain the permission / NOC from Central Ground Water Authority (CGWA) regarding abstraction of fresh water from all the existing tube-wells in the industry.
6. The industry shall install electromagnetic flow meter at the inlet of the ETP before the equalization tank within 21 days.
7. The industry shall commission on Elemental Chlorine Free bleaching (ECF) in the agro based production by 31.03.2019.
8. The industry shall install and commission a new soda recovery plant of 500 TPD capacity dry black liquor solids by 31/03/2020.

And whereas, the officers of the Board also stated that the Hon'ble National Green Tribunal vide order dated 19/12/2018 in the matter of O.A. No. 850/2018 titled as Residents of Saila Khurd, Raniaala Vs State of Punjab passed the following orders:-

“Let a joint report be furnished by Central Pollution Control Board (CPCB) and Punjab State Pollution Control Board (PSPCB) on factual aspects of the matter and action taken, if any, to this Tribunal within one month from the date of receipt of copy of this order by e-mail at

ngt.filing@gmail.com. The nodal agency will be PSPCB to coordinate and comply with the order”

And whereas, in compliance to said orders of Hon'ble National Green Tribunal, the industry was visited on 17/01/2019 by the joint team comprising of officers of CPCB & PPCB. The report prepared by the Joint Team after conduct of visit to the industry, was placed before Hon'ble NGT. The finding and conclusion drawn by the joint inspection team are given as under:-

1. The unit is non-complying with the effluent discharge norms stipulated under E(P) Rules, 1986 for BOD, COD & TSS parameters. The final treated Effluent showed BOD- 106 mg/l (against norms of 30 mg/l), COD- 608 mg/l (against 350 mg/l) and TSS-87 mg/l (against 50 mg/l).
2. The OCEMS display panel at ETP was not showing the ETP outlet discharge flow meters reading during the visit and unit requires to Connect or restore the flow meter data connectivity to CPCB server.
3. The quality of ground water Collected from tube wells of all three village showed exceedance w.r.t acceptable norms for parameter, Viz, total hardness, total alkalinity, but they are within the permissible limit of BIS Standards. The calcium and magnesium level at the Pansera village showed exceedance w.r.t acceptable Norms, however are within the permissible limit.
4. The heavy metals in the groundwater samples are well within the BIS standards for drinking water.
5. The stack monitoring results showed compliance with the emission norms.

And whereas, the industry vide dated 21/2/2019 has asked the Board to furnish a copy of the report of joint team constituted by the

Hon'ble NGT and the findings and conclusion drawn by the joint inspection team are mentioned herein above for the ensuring compliance of the same by the industry.

And whereas, the industry had submitted its reply vide letter dated 7/3/2019. In compliance to the decision taken in the hearing held on 5/2/2019, which has been taken on record by the Board and the technical details mentioned by the CPPRI, Saharanpur in its report regarding adequacy assessment of existing ETP and study on the adequacy of chemical recovery system will be discussed in this hearing and the industry shall come prepared to discuss the technical details of said reports in the hearing.

And whereas, the OA. No. 850/2018 titled as Residents of Saila Khurd, Raniala V/s State of Punjab came for hearing before the Hon'ble NGT on 14/3/2019 and the Hon'ble NGT has taken the findings and recommendations of joint team on record and the relevant part of the said order is reproduced as under:-

1. *It is clear that violations are serious but action taken is inadequate. Neither any closure has been ordered till compliance nor damages assessed and recovered. PSPCB has, thus, failed to act upon the 'Precautionary' and 'Polluter Pays' principle for preventing further damage and restoring the damage already caused.*
2. *In view of above, the PSPCB may now take appropriate action in accordance with law.*
3. *The Joint Committee may assess the extent of damage caused in monetary terms on settled principles requiring the compensation to be deterrent and adequate to meet the cost of restoration.*

4. An action taken report may be furnished by the PSPCB and the joint Committee in above terms within one month by email at ngr.filing@gmail.com

And whereas, the industry is violating various provision of the Water Act (Prevention & Control of Pollution) Act, 1974 intentionally and deliberately.

And whereas, after hearing on 9.4.2019, the officer of the Board and representative of the industry were heard and on the basis of the facts as stated above, the Chairman of the Board decided that:-

1. The industry shall critically examine the assessment study report of CRPI chemical recovery plant and ETP conducted by CPPRI and the ground water study conducted by report submitted by the industry, so that the issues and the observations can be discussed in detail.
2. The industry shall submit the point wise detailed compliance report of the above mentioned observations raised during the hearing proceedings well before the next date of hearing, so that same be discussed in the next hearing.
3. The industry shall be reheard on 24/4/2019 before the Hon'ble Worthy Chairman of the Board.

And whereas, the industry was issued notice u/s 33-A of the Water Act, 1974 vide no. 1368-69 dated 25.3.2019 to appear before the Chairman of the Board on 9.4.2019 at Patiala, which was postponed to 24.4.2019 alongwith the change of venue of hearing to R.O., Mohali.

And whereas, the industry is violating various provision of the Water Act (Prevention & Control of Pollution) Act, 1974 intentionally and deliberately.

And whereas the matter has been considered by the Competent Authority to the Board and it has been decided to give hearing u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 to industry and now the industry was served notice u/s 33-A of the Water Act (Prevention & Control of Pollution) Act, 1974 and proposes to issue following directions:

1. That the industry will dismantle and remove all outlets and stop forthwith discharging its trade effluent onto land for irrigation or through any other mode.
2. That the industry will not restart any process unless all necessary water pollution control measures are taken and concentration of various pollutants in its treated trade effluent conforms to the effluent standards laid down by the Board for such discharges and make proposal disposal arrangement for the treated waste water.
3. That the industry will not restart discharging effluent until it obtains the consent of the Board u/s 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988.
4. That the industry shall not restart its any process/ until unless it comply with the observations of the Joint Team constituted by the Hon'ble NGT.
5. That Punjab State Electricity Board Authority will be directed to disconnect the supply of electricity available to project proponent.

And whereas, after hearing the representatives of the industry and officers of the Board and considering material facts on record, the Chairman of the Board decided as under:

- i. In order to ensure proper and effective operation of the Effluent Treatment Plant and chemical recovery plant and considering the violations mentioned herein above, the industry is hereby directed to curtail 10% production capacity i.e. it shall not produce more than 337.5 TPD on an average (375-

37.5 TPD). Directions in this regard u/s 33-A of the Water Act, 1974 shall be issued separately.

- ii. The EE, Regional office, Hoshiarpur is directed to seal the Lignin Precipitation Plant (LPP) of the industry with immediate effect and shall report in this regard to Zonal Office, Jalandhar within 7 days. This may also be made a part of the Directions to be issued to the industry u/s 33-A of the Water Act, 1974.
- iii. The EE, Regional office, Hoshiarpur is directed to encash the Bank Guarantee of Rs.10.00 lakhs (Rupees Ten Lakhs Only), which has already been submitted by the industry to the Board as an assurance to comply with the provisions of the Water Act, 1974.
- iv. The industry is given a time period of three months from the date of hearing to remove all the discrepancies / observations of the Board made above and to ensure the compliance of commitments made by the industry orally during the hearing / submitted in writing vide letter dated 24.4.2019.
- v. The industry is directed to furnish a fresh bank guarantee of Rs. 50.00 lakhs (Rupees Fifty Lakhs only) to the Board within 7 days as an assurance to comply with the provisions of the Water Act, 1974 and to comply with the decisions of the personal hearing including the submissions made orally during the hearing submitted in writing vide letter dated 24.4.2019. In case, the industry fails to make the compliance of the observations mentioned above, within a stipulated period of three months, the BG of Rs. 50.00 lakhs shall be encashed and further action under the Water Act, 1974 shall be initiated.
- vi. The Board shall grant the application for consent to operate under the Water Act, 1974 and Air Act, 1981 submitted by the industry, for curtailed

production of 337.5 TPD of writing and printing paper for a period of three months subject to the suitable conditions.

- vii. The Senior Environmental Engineer, Zonal Office, Jalandhar shall take up matter with NIT, Jalandhar for carrying out hydro geological study at various locations where the treated wastewater is utilized by the industry for irrigation of agricultural fields including in the premises of the unit and on the upstream side of the industry as a reference sample for getting a study conducted within a period of 3 months, to ascertain the effect on the ground water quality due to utilization of treated wastewater for irrigation purpose. The entire cost to be incurred on this study shall be borne by the industry. EE RO, Hoshiarpur shall act as a coordinator for getting conducted this study.
- viii. It was made clear to the representatives of the industry present in the hearing that in case the industry fails to make the compliance of the above mentioned decisions of the hearing, action as deemed fit under the provisions of the Water Act, 1974 shall be taken without affording any further opportunity / notice.

And whereas, the proceedings of hearing were conveyed to industry vide letter no. 1936 dated 25-4-2019.

And whereas, the industry is violating various provision of the Water Act (Prevention & Control of Pollution) Act, 1974 and polluting the Environment.

And whereas, now the Competent Authority has considered the matter and decided that directions b issued to the industry to curtail 10% production capacity i.e. it shall produce not more than 337.5 TPD on an average (375 – 37.5 TPD) and Regional office Hoshirpur to seal the Lignin Precipitation Plant (LPP) on the industry with immediate effect.

You are therefore directed to comply with the following

directions:-

- 1) *The industry is hereby directed to curtail 10% production capacity i.e. it shall produce not more than 337.5 TPD on an average (375 – 37.5 TPD).*
- 2) *The Lignin Precipitation Plant (LPP) of the industry shall be seal with immediate effect”.*

Senior Environmental Engineer

For & behalf of the PPCB

Endst. No.....

dated.....

A copy of the above is forwarded to Environmental Engineer,
Punjab Pollution Control Board, Regional Office, Hoshiarpur for
information and necessary action as per the above decision.

Senior Environmental Engineer

For & behalf of the PPCB

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

Original Application No. 850 of 2018

Residents of SailaKhurd, Raniaia

Versus

State of Punjab

Status / Action taken report of Er. Surinder Singh Matharu, Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur in compliance to the order dated 14/3/2019.

I, above named deponent, do hereby, solemnly affirm and state as under:

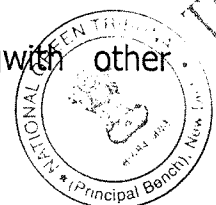
Respectfully Showeth,

1. That vide orders dated 19/12/2018 passed in the above mentioned case, the Hon'ble Tribunal was pleased to issue directions to the effect that a joint report be furnished by the Central Pollution Control Board and the Punjab State Pollution Control Board on actual aspects of the matter and action taken, if any.
2. That in compliance, the Industry namely M/s Kauntam Paper Pvt. Ltd., Vill. SailaKhurd, Tehsil Gharshankar, Distt. Hoshiarpur was visited on 17/1/2019 by the joint team comprising of officers of Central Pollution Control Board and Punjab Pollution Control Board and the report was prepared.
3. That the Report of the Joint Team comprising of officers of Central Pollution Control Board and Punjab Pollution Control Board was placed before the Hon'ble National Green Tribunal by

way of status report. After considering the said report, the Hon'ble NGT was pleased to pass the following order dated 14/3/2019 :

- i. It is clear that violations are serious but action taken is inadequate. Neither any closure has been ordered till compliance nor damages assessed and recovered. PSPCB has, thus, failed to act upon the 'Precautionary' and 'Polluter Pays' principle for preventing further damage and restoring the damage already caused.
 - ii. In view of the above, the PSPCB may now take appropriate action in accordance with law.
 - iii. The Joint Committee may assess the extent of damage caused in monetary terms on settled principles requiring the compensation to be deterrent and adequate to meet the cost of restoration.
 - iv. An action taken report may be furnished by the PSPCB and the Joint Committee in above terms within one month by email at ngt.filing@gmail.com
4. That in compliance to the orders dated 14/3/2019 passed by the Hon'ble National Green Tribunal, the industry was given an opportunity of personal hearing on 9/4/2019 u/s 33-A of the Water (Prevention and Control of Pollution) Act, 1974 before the Chairman of the Board. In the said hearing the assessment report of Chemical Recovery Plant (CRP) and adequacy report of ETP prepared by Central Pulp and Paper Research Institute, Roorkee (CPPRI) was discussed in detail along with other

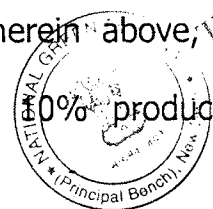
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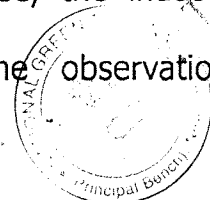
observations and it was decided by the Chairman of the Board as under:

- (i) The industry shall critically examine the assessment study report of Chemical Recovery Plant (CRP) and ETP conducted by CPPRI and the ground water study report conducted and submitted by it, so that the issues and the observations can be discussed in detail.
 - (ii) The industry shall submit the point wise detailed compliance report of the above mentioned observations raised during the hearing proceedings well before the next date of hearing, so that same be discussed in the next hearing.
 - (iii) The industry shall be reheard on 24/4/2019 before the Chairman of the Board.
5. That the proceedings of hearing held on 9/4/2019 were conveyed to the industry vide letter no. 1734 dated 15/4/2019 for ensuring compliance of the decisions. A copy of letter no. 1734 dated 15/4/2019 is hereby produced and enclosed herewith as **Annexure-A** for kind perusal of the Hon'ble Tribunal.
6. That the industry was again heard on 24/4/2019 u/s 33-A of the Water Act, 1974 by the Chairman of the respondent Board, wherein, after hearing it was decided as under :
- (i) In order to ensure proper and effective operation of the Effluent Treatment Plant and Chemical Recovery Plant and considering the violations mentioned herein above, the industry is hereby directed to curtail 100% production



capacity i.e. it shall produce not more than 337.5 TPD on an average (375 – 37.5 TPD). Directions in this regard u/s 33-A of the Water Act, 1974 shall be issued separately.

- (ii) The EE, Regional office, Hoshiarpur is directed to seal the Lignin Precipitation Plant (LPP) of the industry with immediate effect and shall report in this regard to Zonal Office, Jalandhar within 7 days. This may also be made a part of the Directions to be issued to the industry u/s 33-A of the Water Act, 1974.
- (iii) The EE, Regional Office, Hoshiarpur is directed to encash the Bank Guarantee of Rs. 10.00 lakhs (Rupees Ten Lakhs Only), which has already been submitted by the industry to the Board as an assurance to comply with the provisions of the Water Act, 1974.
- (iv) The industry is given a time period of three months from the date of hearing to remove all the discrepancies / observations of the Board made above and to ensure the compliance of commitments made by the industry orally during the hearing / submitted in writing vide letter dated 24.4.2019.
- (v) The industry is directed to furnish a fresh bank guarantee of Rs. 50.00 lakhs (Rupees Fifty Lakhs Only) to the Board within 7 days as an assurance to comply with the provisions of Water Act, 1974 and to comply with the decisions of the personal hearing including the submissions made orally during the hearing / submitted in writing vide letter dated 24.4.2019. In case, the industry fails to make the compliance of the observations



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mentioned above, within a stipulated period of three months, the BG of Rs. 50.00 lakhs shall be encashed and further action under the Water Act, 1974 shall be initiated.

- (vi) The Board shall grant the application for consent to operate under the Water Act, 1974 and Air Act, 1981 submitted by the industry, for curtailed production of 337.5 TPD of writing and printing paper for a period of three months subject to the suitable conditions.
- (vii) The Senior Environmental Engineer, Zonal Office, Jalandhar shall take up matter with NIT, Jalandhar for carrying out hydro geological study at various locations where the treated wastewater is utilized by the industry for irrigation of agricultural fields including in the premises of the unit and on the upstream side of the industry as a reference sample for getting a study conducted within a period of 3 months, to ascertain the effect on the ground water quality due to utilization of treated wastewater for irrigation purposes. The entire cost to be incurred on this study shall be borne by the industry. EE RO, Hoshiarpur shall act as a coordinator for getting conducted this study.
- (viii) It was made clear to the representatives of the industry present in the hearing that in case the industry fails to make the compliance of the above mentioned decisions of the hearing, action as deemed fit under the provisions of the Water Act, 1974 shall be taken without affording any further opportunity / notice.


7. That the proceedings of the said hearing were conveyed to the industry vide letter no. 1936 dated 25/4/2019 for ensuring

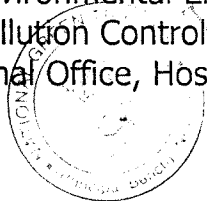


compliance of the decisions taken in the said hearing and a copy of the same is hereby produced and enclosed as **Annexure-B** for kind perusal.

8. That in compliance to the decisions taken in the hearing held on 24.04.2019, directions u/s 33-A Water (Prevention & Control of Pollution) Act, 1974 have been issued by the respondent Board vide letter dated 25.04.2019 (**Annexure-C**) to the effect that:-
- i) *The industry is hereby directed to curtail 10% production capacity i.e. it shall produce not more than 337.5 TPD on an average (375-37.5 TPD).*
 - ii) *The Lignin Precipitation Plant (LPP) of the industry shall be seal with immediate effect.*
9. That the action taken report with regard to the assessment and imposition of Environmental Compensation in the case on the basis of 'Precautionary and Polluter Pays' principle for preventing further damage and restoring the damage already caused, will be separately filed by the joint committee comprising the officers of the Central Pollution Control Board and Punjab Pollution Control Board.
10. That the status / Action Taken Report of the respondent Board may kindly be taken **on record** for consideration and appropriate orders.

Date: 01.05.19
Place: Hoshiarpur

Deponent

(**Surinder Singh Matharu**)
Environmental Engineer
Punjab Pollution Control Board,
Regional Office, Hoshiarpur




Verification:

Verified that the contents of para no. 1 to 9 of the above action taken report are true and correct to my knowledge as derived from the official record. Para No. 10 is prayer. No part of the above status / action taken report is false and nothing material has been kept concealed therein.

Date: 01.05.19
Place: Hoshiarpur

Deponent


(Surinder Singh Matharu)
Environmental Engineer
Punjab Pollution Control Board,
Regional Office, Hoshiarpur

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\\TRUE COPY\\



TRUE COPY

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website:www.ppcb.gov.in	Phone/FAX: -1882-248020

No. 1956

Dated 07/05/2019

To

The Registrar,
Hon'ble National Green Tribunal,
New Delhi

Sub:- Joint Report by CPCB & PPCB regarding assessment of extent of damage caused by M/s Kuantam Papers Ltd., Village Salla Khurd, Tehsil Garhshankar, Distt Hoshiarpur in monetary terms on settled principles

Respected Sir,

It is respectfully submitted that the Joint Report regarding assessment of extent of damaged caused by K/s Kuantam Papers Ltd., Village Salla Khurd, Tehsil Garhshankar, Distt. Hoshiarpur in monetary terms on settled principles prepared by the CPCB & PPCB in compliance to orders passed by the Hon'ble NGT on 14.03.2018 in OA No. 850/2018 titled as Resident of Salla Khurd, Ranlala v/s State of Punjab, is attached herewith for placing the same on record, please.

DA/As above.

Sd/- 7/5/19
Environmental Engineer

Endst no.

Dated

A copy of above is forwarded to the Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office, Jalandhar for information please.

Sd/-
Environmental Engineer

Joint Report by CPCB & PPCB regarding assessment of extent of damage caused by M/s Kuantam Papers Ltd., Village Saila Khurd, Tehsil Garhshankar, Distt Hoshiarpur in monetary terms on settled principles

1. Background

1.1 About the Unit:

The industry is a large scale unit and engaged in the manufacturing of writing and printing paper by using Sarkanda, Kahi, Wheat Straw, Wood Chips, Bamboo Wood, Veneer Waste and other agro residues @ 1000 Metric Tonnes/Day, readymade Wood Pulp, Waste Paper etc. as raw material

1.2 Visit to the Unit by PPCB and Action Taken:

1.21 Visit on 27.05.2018

Accordingly, the industry was visited by the officer of Regional Office, Punjab Pollution Control Board, Hoshiarpur on 27.05.2018 and carried out the monitoring of Effluent Treatment Plant by collecting samples of treated industrial effluent. The said sample were analysed for the prescribed parameters by the Punjab Pollution Control Board and the analysis results of which are given as under:

S. No.	Parameters	Concentration of Pollutants			Prescribed Standards
		Results of Final outlet of ETP	Aeration Tank	From the Pipe leading from outlet of ETP for Irrigation purpose in the field of Sh. Satnam Singh S/o Sohan Singh	
1.	pH	7.76	-	7.63	7.0 – 8.5
2.	TSS (mg/l)	38	-	92	50
3.	COD (mg/l)	205	-	232	350
4.	BOD (mg/l)	26	-	34	30
5.	Sodium Absorption Ration (SAR) (mg/l)	5.96	-	5.72	26
6.	Mix Liquid Suspended	-	6290	-	-

	Solids (mg/l)				
--	------------------	--	--	--	--

The analysis results reveal that the concentration of BOD and TSS in the industrial effluent collected from the outlet located near the tubewell of Sh. Satnam Singh S/o Sohan Singh, through which treated industrial effluent is used to irrigate the agricultural fields, was beyond the prescribed standards for such type of industries.

1.22 Action taken by PPCB

Since, the Industry failed to meet the prescribed effluent standards, the industry was served with notice u/s 33-A of Water (Prevention & Control of Pollution) Act, 1974 along with opportunity of personal hearing before the Chairman of the Board on 18.09.2018, wherein it was decided as under:

- 1) The Chief Environmental Engineer Jalandhar shall co-ordinate the visit of PBTI (Punjab Biotechnology Incubator) to the industry within 07 days and PBTI shall collect and analysis the treated trade effluent sample and submit report to the Punjab Pollution Control Board.
- 2) The Chief Environmental Engineer, Jalandhar shall visit the industry & assess the adequacy of pollution control measures/disposal arrangements made by the industry & shall submit report/ recommendations before next date of hearing.
- 3) Further action will be taken after receipt of the report.

1.23 Visit on 15.11.2018 by PPCB

The factory was visited on 15.11.2018 by the team comprising of the officers of Punjab Pollution Control Board and representative of Punjab Biotechnology Incubator (PBTI), SAS Nagar. During visit, it was observed as under:

1. The ETP was found in operation and the treated effluent was being discharged onto land for irrigation outside the premises of the unit.
2. The team also checked the online monitoring system and found in operation and readings were noted as pH-7.49, COD-211 mg/l, BOD-219 mg/l, TSS-30.6 mg/l. The discharge of treated waste water in the pipe lines leading to agricultural fields to utilize it for irrigation purpose, were noted as under:-
 - i) 69 m³/hr at vill, (gandhowal)
 - ii) 71 m³/hr at vill. (old pansera)
 - iii) 247 m³/hr at vill. Jeevanpur Jattan
 - iv) 100 m³/hr at vill. (Narila)
 - v) 225 m³/hr at vill. (New Pansera)
 - vi) 198 m³/hr at vill. (Saila Kalan)
3. The representative of PBTI accompanied with the team, collected treated effluent samples form outlet of ETP and 3 no. samples of effluent from aeration tanks.
4. The analysis results of the industrial effluent as received from the PBTI, lab, Mohali are given as under:

Sr. No.	Location of the sampling point	Parameters	Concentration of parameters	Prescribed standards
1.	Outlet of ETP	pH	7.91	7.0 to 8.5
		Total Suspended Solids (TSS)	149 mg/l	50
		Biochemical Oxygen Demand	82 mg/l	30
		Chemical Oxygen Demand (COD) Total	612 mg/l	350
		Sodium Adsorption Ratio (SAR")	6.1 mg/l	25
2.	Aeration Tank No.1	MLSS	2230 mg/l	----
3.	Aeration Tank No.2	MLSS	6780 mg/l	----
4.	Aeration Tank No.3	MLSS	1030 mg/l	----
5.	From land of Manjit Singh, Village Saila Kalan.	pH	7.91	7.0 to 8.5
		TSS	458 mg/l	50
		BOD	243 mg/l	30
		COD	1429 mg/l	350
		SAR	4.2 mg/l	25

The analysis results of the effluent sample collected from the outlet of the ETP show that the concentration of BOD, COD and TSS was 82 mg/l, 612 mg/l, 149 mg/l and similarly in another sample of effluent collected from the fields of Sh. Manjit Singh (Saila Kalan), the concentration of BOD, COD and TSS was analysed as 243 mg/l, 1429 mg/l and 458 mg/l respectively, which was beyond standards laid down for the Pulp & Papers Industries.

1.24 Action Taken by PPCB:

Keeping in view, the failure of the industry to comply with the effluent standards, the industry was given another opportunity of personal hearing before Chairman of the Board on 05.02.2019 in connection with already issued notice u/s 33-A of the Water Act, 1974, wherein, it was decided as under:

- 1) The industry shall engage CPPRI, Saharanpur and get its existing ETP and chemical recovery plant audited and a proposal be prepared for up-gradation required in existing ETP and chemical recovery plant, so as to meet the effluent standards as prescribed under the law and the report be submitted to the PPCB within 21 days.
- 2) The industry shall prepare an irrigation Management Plan from a consultant of good repute for the whole of the command area available

within the industry and outside the industry where treated effluent of the industry is utilized onto land for irrigation purpose within 15 days and thereafter get it verified and approved form the Department of Soil & Water Conservation, Punjab and submit the same to the Punjab Pollution Control Board within 21 days.

- 3) The industry shall get the ground water study of the whole command area where the treated effluent is utilized onto land for irrigation purpose from any expert institute in the field of Hydrogeology and submit report to Punjab Pollution Control Board within 21 days.
- 4) The industry shall prepared a Standard Operating Procedure (SOP) for the operation of ETP and Chemical Recovery Plant (CRP) and shall maintain the record of operation to ETP on daily basis and shall submit monthly record duly verified by the Designated Authority of the industry to the Punjab Pollution Control Board.
- 5) The industry shall obtain the permission/ NOC from Central Ground Water Authority (CGWA) regarding abstraction of fresh water from all the existing tube-wells in the industry.
- 6) The industry shall install electromagnetic flow meter at the inlet of the ETP before the equalization tank within 21 days.
- 7) The industry shall commission the Elemental Chlorine Fee Bleaching (ECF) in the agro based production by 31.03.2019.
- 8) The industry shall install and commission a new soda recovery plant of 500 TPD capacity dry black liquor solids by 31.03.2020.

2.0 Orders passed by the Hon'ble NGT on 19.12.2018

The OA No. 850/2018 titled as Residents of Saila Khurd, Raniala v/s State of Punjab came up for hearing before the Hon'ble NGT on 19.12.2018 and the operative part of the order is reproduced as under:

“Let, a joint report be furnished by CPCB and Punjab SPCB on factual aspects of the matter and action taken, if any, to this Tribunal within one month from the date of receipt of copy of this order by e-mail at ngt.filing@gmail.com. The nodal agency will be PSPCB to coordinate and comply with the order.

3.0 Visit to the Industry by the Joint Committee of CPCB and PPCB on 17.01.2019

In compliance to said orders of the Hon'ble NGT a joint team comprising of following officers visited by the Industry on 17.01.2019 and it was observed as under:

- 1) The unit and its ETP was operational during the visit.
- 2) The Stream II effluent (wet washing effluent) after treatment through bio/digesters is mixed with stream I effluent (paper machine effluent) & no equalization tank was found before subjecting the

mixed effluent for treatment. Samples of the mixed stream I & II before treatment (inlet to primary clarifier) were collected by the joint team. The analysis results of said samples are given as under:-

Sr. No.	Location of the sampling point	Parameters	Concentration of Parameters	Prescribed Standards
1.	Inlet of the ETP (mixed stream I & II)	pH	6.53	-
		Total Suspended Solids (TSS)	628 mg/l	-
		Biochemical Oxygen Demand (BOD ₃ at 27°C)	443 mg/l	-
		Chemical Oxygen Demand (COD) Total	3840 mg/l	-
2.	Outlet of the ETP (Final Outlet for plantation)	pH	7.63	7.0 to 8.5
		TSS	87 mg/l	50
		BOD	106 mg/l	30
		COD	608 mg/l	350

From the above, it is evident that the concentration of TSS, BOD & COD is beyond the prescribe discharge standards.

- 3) The ETP outlet discharge flow rate data was not being displayed in the real-time OCEMS panel at ETP during the visit and unit requires to connect/restore the flow water data to CPCB server.
- 4) The treated effluent was being discharged into the land (within and outside the unit premises) for irrigation purpose. The unit representative informed that treated effluent is carried through underground pipelines to the nearby villages such as Saila Khurd, Saila Kalan, Pensera, Majaria, etc. As per the consent the unit has 110 acres of land within the premises and 2050 acres in nearby village for irrigation.
- 5) The instantaneous reading of flow meters installed at 6 pipelines (for irrigation through 5 pumps and one by gravity) was recorded during the visit as 84.5m³/hr, 319.4m³/hr, 146.233m³/hr, 283.3m³/hr, 307.7m³/hr & 121 m³/hr. The outlet discharge pumps has auto level and once the level of treated effluent goes down the pumps stops. As per the logbooks provided by the unit, the effluent discharge during the visit was 16903 m³/day.

Findings and Conclusion of Joint Committee

1. The unit is non complying with the effluent discharge norms stipulated under E(P) Rules, 1986 for BOD, COD and TSS parameters. The final treated effluent showed BOD-106 mg/l (against norms of 30 mg/l), COD-608 mg/l (against 350 mg/l) and TSS-87 (against 50mg/l).

2. The OCEMS display panel at ETP was not showing the ETP outlet discharge flow meters reading during the visit and unit requires connect/restore the flow meter data to CPCB server.
3. The quality of ground water collected from tube wells of all three villages shows exceedance w.r.t. acceptable norms for parameters, viz. total hardness, total alkalinity, but they are within the permissible limit of BIS Standards. The calcium and magnesium level at the Pansera vill showed exceedance w.r.t. acceptable norms, however are within the permissible limit.
4. The heavy metals in the groundwater samples are well within the BIS standards for drinking water.
5. The stack monitoring results showed compliance with the emission norms.

4.0 Orders passed by the Hon'ble NGT on 14.03.2019

OA No. 850.2018 titled as Residents of Saila Khurd, Raniaala V/s State of Punjab came up for hearing before the Hon'ble NGT on 14.03.2019 and the relevant part of the order passed by the Hon'ble NGT on the said date is reproduced as under:

“The Joint Committee may assess the extent of damage caused in monitory terms and settled principles requiring the compensation to the deterrent and adequate to meet the cost of restoration.

An action taken report may be furnished bythe PCPSB and the Joint Committee in above terms within one month by email at ngt.filing@gmail.com”

5.0 Constitution of Committee to assess the extent of damage caused in monitory terms on settled Principles:

In compliance to the said order of the Hon'ble NGT, the Punjab Pollution Control Board constituted a Joint Committee vide letter no. 505-07 dated 22.03.2019 comprising of the following officers to the visit the industry to assess the extent of damage caused in monitoring terms on settled principles which will be adequate to meet with the cost of restoration.

- 1) Er. G.S. Majithia, Chief Environmental Engineer, Punjab Pollution Control Board, Jalandhar.
- 2) Sh. Kamlesh Singh, Scientist D, IPC-III Divisioin, CPCB, Delhi.
- 3) Er. Surinder Singh Matharu, Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur.
- 4) Sh. Sandeep Gupta, Asstt. Scientific Officer, Zonal Lab, Jalandhar.
- 5) Er. Pooja Sharma, Asstt. Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur.

6.0 Visit to the industry by the Joint Committee on 01.04.2019

The industry was visited by the Joint Committee on 01.04.2019 and it was observed as under:

- i) The industry was in operation during visit.

- ii) The industry has not installed any electromagnetic flow meter at the inlet of the ETP before equalization tank within the stipulated period of 21 days as decided in the hearing held on 05.02.2019, as such, the industry is not-complying with the decision of the hearing.
- iii) The industry has not yet commissioned the Elemental Chlorine Free Bleaching (ECF) in the agro based unit, which was to be commissioned on 31.03.2019 as decided in the hearing held on 05.02.2019. However, the representative of the industry shown the machinery where the unit was taking trial runs to phase out use of elemental chlorine with elemental chlorine free bleaching process. Therefore, the industry is not complying with the decision of the hearing.
- iv) As per adequacy assessment report of the existing ETP carried out by Central Pulp & Paper Research Institute (CPPRI), Sharanpur, the industry was advised:-
 - a) To add equalization tank with mixing arrangements to the existing ETP to avoid fluctuation in pollution load. During visit the excavation work of said tank was in progress.
 - b) To provide rapid mixing mechanism for proper and complete reaction of chemicals to the biological treated effluent before tertiary clarifier to ensure consistent COD values. However, the industry has not yet provided the rapid mixing mechanism.
 - c) To increase the retention time of tertiary clarifier for better removal of TSS, but the industry could not show any steps taken by it to ensure compliance of the same.
 - d) To ensure regular removal of sludge from primary clarifier to avoid septic conditions, but the industry failed to show any record in this regard.
 - e) As per study on adequacy of chemical recovery system of the industry carried out by Central Pulp & Paper Research Institute (CPPRI), Sharanpur, the industry is producing 150-155 TPD agro pulp by utilizing agro residue such as Bagasse, Sarkanda, Kahi grass and wheat straw. Besides it is producing 60-65 Wood Pulp. The remaining quantity of pulp to the tune of 76 TPD is met from readymade pulp. However, the industry could not produce any record to substantiate the facts mentioned in the report prepared by CPPRI.

Therefore, it is clear that the industry is not still complying with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 as observed by the Joint Committee on 01.04.2019.

7.0 Guidelines for Environmental Compensation framed by CPCB.

The CPCB has framed methodology for assessing Environmental Compensation (EC), the details of which are given as under:

$$EC = PI \times N \times R \times S \times LF$$

Where,

EC is Environmental Compensation in rupees

PI = Pollution Index of industrial sector

N = Number of days of violation took place

R = A factor in Rupees for EC

S = Factor for scale of operation
LF = Location factor

The formula incorporates the anticipated severity of environmental pollution in terms of pollution index, duration of violation in terms of number of days, scale of operation in terms of micro & small/medium/large industry and location in terms of proximity to the large habitations.

Note:

- a. The industrial sectors have been categorized into Red, Orange and Green, based on their Pollution Index in the range of 60 to 100, 41 to 59 and 21 to 40, respectively. It was suggested that the average pollution index of 80, 50 and 30 may be taken for calculating the Environmental Compensation for Red, Orange & Green categories of industries, respectively.
- b. N, number of days for which violation took place in the period between the day of violation observed/ due date of direction's compliance and the day of compliance verified by CPCB/SPCB/PCC.
- c. R is a factor in Rupees, which may be a minimum of 100 and maximum of 500. It is suggested to consider R as 250, as the Environmental Compensation in cases of violation.
- d. S could be based on small/medium/large industry categorization, which may be 0.5 for micro or small, 1.0 for medium and 1.5 for large units.
- e. LF, could be based on population of the city/town and location of the industrial unit. For the industrial unit located within the municipal boundary or up to 10 km distance from the municipal boundary of the city/town, following factors (LF) may be used:

Sr. No.	Population* (million)	Location Factor#(LF)
1	1 to <5	1.25
2	5 to <10	1.5
3.	10 and above	2.0

* Population of the city/towns as per the latest Census of India

LF will be 1.0 in case unit is located > 10 km from municipal boundary

LF is presumed as 1 for city/town having population less than one million

For notified Ecological Sensitive areas, for beginning, LF may be assumed as 2.0. However, for critically Polluted Areas, LF may be explored in future.

- f. In any case, minimum Environmental Compensation shall be Rs.5000/day.
- g. In order to include deterrent effect for repeated violation, EC may be increased on exponential basis, i.e. By 2 times on 1st repetition, 4 time on 2nd repetition and 8 times on further repetition.

- h. If the operation of the industry are inevitable and violator continues its operation beyond 3 months then for deterrent compensation, EC may be increased by 2, 4 and 8 times for 2nd, 3rd, and 4th quarter, respectively. Even if the operations are inevitable beyond 12 months, violator will not be allowed to operate.
- i. Besides, EC, industry may be prosecuted or closure directions may be issued, whenever required.

8.0 Calculation of value of LF & N (No. of days of violation took place).

8.1 Calculation for value of N

The industry has violated the provisions under Water Act, 1974 during the following periods:

- i) The industry was visited on 27.05.2018 by PPCB after getting message through SMS Alert system on 05.05.2018 regarding non-conforming of effluent standards by it. As mentioned above, the treated wastewater sample collected on 27.05.2018 was not conforming to the effluent standards. The industry was again visited on 15.11.2018 by a team constituted by the State Board and again the treated wastewater samples collected on 15.11.2018 were not conforming to the effluent standards. Therefore, for first time industry was found non-conforming to the effluent standards during the period 27.05.2018 to 14.11.2018 and total days of this period have been worked out as 172.
- ii) The industry was jointly visited on 17.01.2019 by CPCB and PPCB and the treated wastewater sample collected on 17.01.2019 was not conforming to the effluent standards. Therefore, the period 15.11.2018 to 16.01.2019 is the period for which the industry is found non-conforming to the effluent standards for second time and total days of this period have been worked out as 63.
- iii) The industry was again visited by a team of 01.04.2019 and found that the industry was not complying with the observations of the Board, the detail of which is mentioned above. Therefore, the period 17.01.2019 to 31.03.2019 is the period for which industry is found non-complying for consecutive third time and total days of this period have been worked out as 74.
- iv) The total number of violation days i.e. N comes as 309 days (172+63+74).

8.2 Calculation for value of LF

The total population of Hoshiarpur city is 1,68,653 as per census 2011. The industry does not fall in the Eco Sensitive Zone since the MoEF&CC vide notification no. 29.11.2016 has declared Eco Sensitive Zone within a radius of 100 mtr. From the Takhni Rahmapur Wild Life Sanctuary, which is located at a distance of more than 15 km. from the industrial unit. Further, Lalwan Community Reserve is situated in Tehsil Garhshankar in Distt Hoshiarpur and is spread over an area of 1266 ha. This Community Reserve is located at a distance of about 13 Km. from the boundary nearest to this Community Reserve. Therefore, LF for this unit is considered as 1.

9.0 Calculations of Environment Compensation:

As per formula devised by the CPCB for Environment Compensation, the values of various parameters of the said formula for this industry are as under:-

PI – 80

R – 250

S – 1.5

LF – 1.0

N – 309 days

The Environment Compensation for the period 27.05.2018 to 31.03.2019 (309 days), is calculated by considering the fact that the violator industry continues its operation beyond 3 months, therefore for deterrent compensation, EC may be increase by 2, 4 & 8 times for 2nd (91-180 days), 3rd, (181-270 days) and 4th quarter (271-309 days), respectively. The Environmental Compensation is calculated as below:

1. The Environment Compensation (EC) for the period 3 months i.e. 1st quarter (first 90 days) is calculated as given below:

$$EC-1 = PI \times N \times R \times S \times LF = 80 \times 90 \text{ days} \times 250 \times 1.5 \times 1.0 = \text{Rs.27.00 lakh}$$

2. The Environment Compensation (EC) for the period 2nd quarter (91-180 days) is calculated for deterrent compensation, considering EC may be increased by 2 times, as given below:

$$EC-2 = 2 \times EC-1 = 2 \times \text{Rs.27.00} = \text{Rs.54 lakh}$$

3. The Environment Compensation (EC) for the period 3rd quarter (181-270 days) is calculated for deterrent compensation, considering EC may be increased by 4 times, as given below:

$$EC-3 = 4 \times EC-1 = 4 \times \text{Rs.27.00} = \text{Rs.108.00 lakh}$$

4. The Environment Compensation (EC) for the period 4th quarter (271-309 days) i.e. for 39 days is calculated for deterrent compensation, considering EC may be increased by 8 times, as given below:

$$EC-4 = 8 [PI \times N \times R \times S \times LF] = 8 \times [80 \times 39 \text{ days} \times 250 \times 1.5 \times 1.0] = \text{Rs.93.60 lakh}$$

The total Environmental compensation for the 309* days to be imposed is calculated as below:

$$\begin{aligned} \text{Total EC} &= EC-1 + EC-2 + EC-3 + EC-4 \\ &= \text{Rs.27.00 lakh} + \text{Rs.54.00 lakh} + \text{Rs.108.00 lakh} + \text{Rs.93.60 lakh} \\ &= \text{Rs.282.60 lakhs} \end{aligned}$$

Therefore, the Environmental Compensation (EC) assessed by the Joint Committee is Rs.282.60 Lakhs.

* In addition to this amount, Environmental Compensation may further be calculated and levied against the industry as the compliance is still pending and requires to be verified by the PPCB.

Sd/-
Er. G.S. Majathia
Chief Environmental Engineer
PPCB, Jalandhar

Sd/-
Sh. Kamlesh Singh, Er. Surinder Singh Matharu
Engineer Scientist D, CPCB, Environmental
Delhi

Sd/-
PPCB, Regional Office,
Hoshiarpur

Sd/-
Sh. Sandeep Gupta
Asstt. Scientific Officer,
Zonal Lab, Jalandhar

Sd/-
Er. Pooja Sharma
Asstt. Environmental Engineer
PPCB, Regional Office, Hoshiarpur.

**Report of the CPCB In-house Committee on
Methodology for Assessing Environmental
Compensation and Action Plan to Utilize the Fund**



CENTRAL POLLUTION CONTROL BOARD
"Parivesh Bhawan", East Arjun Nagar,
Delhi-110032

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Abstract

Environmental compensation is a policy instrument for the protection of the environment which works on the Polluter Pay Principal. Environmental compensation has already been implemented in various countries, although limited in scope. Experiences from these implementations are mixed and tend to stress the importance of certain principles in order to achieve the overall objective of protection of the environment.

The Hon'ble National Green Tribunal through its various judgments has empowered the Central Pollution Control Board to lay down the methodology to assess and recover compensation for damage to the environment and utilize such amount in terms of an action plan for protection of the environment.

An attempt has been made by the CPCB in-house Committee to develop a methodology for assessing environmental compensation to be levied on concerned industry, authority, individual etc. for the protection of environment. Expert institutions/ NGOs like The Energy and Resources Institute, Centre for Science and Environment-India, Institute of Economic Growth etc. were also consulted to finalize the report. Overall objective is to develop self-sense of responsibility towards the environment and to make defaulters realize their mistake by imposing compensation, which will be utilized for the protection/restoration of the environment.

Although, this is the first attempt in India towards development of methodology for assessing environmental compensation, however, efforts have been made to simplifying the process so that regulatory institutions can easily adopt the methodology for implementation.

Chapter-I: Environment Compensation to be levied on Industrial Units

1.1 Background

The Hon'ble National Green Tribunal (NGT), Principal Bench in the matter of OA No. 593/2017 (WP (CIVIL) No. 375/2012, Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors. directed Central Pollution Control Board (CPCB) that:

“The CPCB may take penal action for failure, if any, against those accountable for setting up and maintaining STPs, CETPs and ETPs. CPCB may also assess and recover compensation for damage to the environment and said fund may be kept in a separate account and utilized in terms of an action plan for protection of the environment. Such action plan may be prepared by the CPCB within three months” (Annexure-I).

1.2 Constitution of the Committee

In this context, Chairman, CPCB constituted a Committee under the Chairmanship of Shri A. Sudhakar, I/c WQM-I with Shri A. K. Vidyarthi, I/c WQM-II, Shri P. K. Gupta, I/c IPC-VI, Shri Nazimuddin I/c IPC-II and Dr. S. K. Paliwal, Scientist 'D' as members. The Committee was asked to deliberate on this issue and come up with a draft formulation before 15.9.2018.

1.3 Methodology for Assessing Environmental Compensation

The Committee discussed the issue on 4.9.2018, 13.9.2018, 17.9.2018 and 09.10.2018. A meeting was also held with Senior Officers of CPCB Head Office and Regional Directorates through video conferencing on 28.09.2018 to discuss the draft report and to seek comments/feedbacks. The comments/feedbacks received and deliberations of the Committee on the same are given in **Annexure-II**.

As per the Hon'ble NGT suggestion, CPCB has invited comments of 3 expert institution, namely, Centre for Science and Environment (CSE), Institute of Economic Growth (IEG) and The Energy Research Institute (TERI). A meeting to incorporate the comments of the expert institutions and to finalize the report, was held on 27/03/2019. The CPCB in-house committee on Environmental Compensation has deliberated on the comments and finalized the report accordingly. The Committee's deliberations are attached as **Annexure-III**.

It was deliberated for developing a formula for imposing environmental compensation on industrial units for violation of directions issued by regulatory bodies and this is the first attempt made. The committee discussed that environmental compensation should be based on "Polluter Pay Principle". The Committee decided to list the instances for taking cognizance of cases fit for violation and levy environmental compensation.

Cases considered for levying Environmental Compensation (EC):

- a) Discharges in violation of consent conditions, mainly prescribed standards / consent limits.
- b) Not complying with the directions issued, such as direction for closure due to non-installation of OCEMS, non-adherence to the action plans submitted etc.
- c) Intentional avoidance of data submission or data manipulation by tampering the Online Continuous Emission / Effluent Monitoring systems.
- d) Accidental discharges lasting for short durations resulting into damage to the environment.
- e) Intentional discharges to the environment -- land, water and air resulting into acute injury or damage to the environment.
- f) Injection of treated/partially treated/ untreated effluents to ground water.

1.3.1 In the instances as mentioned at *a, b and c* above, Pollution Index may be used as a basis to levy the Environmental Compensation. CPCB has published guidelines for categorization of industries into Red, Orange, Green and White based on concept of Pollution Index (PI). The Pollution Index is arrived after considering quantity & quality of emissions/ effluents generated, types of hazardous wastes generated and consumption of resources. Pollution Index of an industrial sector is a numerical number in the range of 0 to 100 and can be represented as follows:

$$PI = f(\text{Water Pollution Score, Air Pollution Score \& HW Generation Score})$$

Pollution Index is a number from 0 to 100 and increasing value of PI denotes the increasing degree of pollution *hazard from the industrial sector*.

CPCB has issued directions to all SPCBs/PCCs on 07.03.2016 to adopt the methodology and follow guidelines prepared by CPCB for categorization of industrial sectors into Red, Orange, Green and White.

The concept of Pollution Index, which was deliberated widely with all stakeholders and agreed, shall be used for calculating Environmental Compensation. This may help in implementation of such provision throughout the country, a successful initiative in vital field of industrial pollution control.

After considering various factors including the policy implementation issues, Committee has come up with following formula for levying the Environmental Compensation in instances as mentioned at *a, b and c* including non-compliance of the environmental standards / violation of directions.

The Environmental Compensation shall be based on the following formula:

$$EC = PI \times N \times R \times S \times LF$$

Where,

- EC is Environmental Compensation in ₹
 PI = Pollution Index of industrial sector
 N = Number of days of violation took place
 R = A factor in Rupees (₹) for EC
 S = Factor for scale of operation
 LF = Location factor

The formula incorporates the anticipated severity of environmental pollution in terms of Pollution Index, duration of violation in terms of number of days, scale of operation in terms of micro & small/medium/large industry and location in terms of proximity to the large habitations.

Note:

- The industrial sectors have been categorized into Red, Orange and Green, based on their Pollution Index in the range of 60 to 100, 41 to 59 and 21 to 40, respectively. It was suggested that the average pollution index of 80, 50 and 30 may be taken for calculating the Environmental Compensation for Red, Orange and Green categories of industries, respectively.
- N, number of days for which violation took place is the period between the day of violation observed/due date of direction's compliance and the day of compliance verified by CPCB/SPCB/PCC.
- R is a factor in Rupees, which may be a minimum of 100 and maximum of 500. It is suggested to consider R as 250, as the Environmental Compensation in cases of violation.
- S could be based on small/medium/large industry categorization, which may be 0.5 for micro or small, 1.0 for medium and 1.5 for large units.
- LF, could be based on population of the city/town and location of the industrial unit. For the industrial unit located within municipal boundary or up to 10 km distance from the municipal boundary of the city/town, following factors (LF) may be used:

Table No. 1.1: Location Factor Values

S. No.	Population* (million)	Location Factor# (LF)
1	1 to <5	1.25
2	5 to <10	1.5
3	10 and above	2.0

*Population of the city/town as per the latest Census of India

#LF will be 1.0 in case unit is located >10km from municipal boundary

LF is presumed as 1 for city/town having population less than one million.

For notified Ecologically Sensitive areas, for beginning, LF may be assumed as 2.0. However, for critically Polluted Areas, LF may be explored in future.

- f. In any case, minimum Environmental Compensation shall be ₹ 5000/day.
- g. In order to include deterrent effect for repeated violations, EC may be increased on exponential basis, i.e. by 2 times on 1st repetition, 4 times on 2nd repetition and 8 times on further repetitions.
- h. If the operations of the industry are inevitable and violator continues its operations beyond 3 months then for deterrent compensation, EC may be increased by 2, 4 and 8 times for 2nd, 3rd and 4th quarter, respectively. Even if the operations are inevitable beyond 12 months, violator will not be allowed to operate.
- i. Besides EC, industry may be prosecuted or closure directions may be issued, whenever required.

A sample calculation for Environmental Compensation (without deterrent factor) is given at Table No. 1.2. It can be noticed that for all instances, EC for Red, Orange and Green category of industries varies from 3,750 to 60,000 ₹/day.

Table No. 1.2: A sample calculation for Environmental Compensation

Industrial Category	Red	Orange	Green
Pollution Index (PI)	60-100	41-59	21-40
Average PI	80	50	30
R-Factor	250		
S-Factor	0.5-1.5		
L-Factor	1.00-2.00		
Environmental Compensation (₹/day)	10,000-60,000	6,250-37,500	5,000-22,500

1.3.2 In other instances i.e. *d, e and f*, the environmental compensation may contain two parts – one requires providing immediate relief and other long-term measures such as remediation. In all these cases, detailed investigations are required from expert institutions/organizations based on which environmental compensation will be decided. CPCB shall list the expert institutions for this purpose.

In such cases, comprehensive plan for remediation of environmental pollution may be prepared and executed under the supervision of a committee with representatives of SPCB, CPCB and expert institutions/organizations.

1.4 Action Plan for Utilization of Environmental Compensation Fund

The Committee discussed about the utilization of funds, which will be received by imposing Environmental Compensation. The following Action Plan is proposed to utilize the fund for protection of the environment.

1.4.1. When Environmental Compensation is calculated through the Pollution Index:

The amount received by imposing the Environmental Compensation to the industries / organization non-complying with the environmental standards / violating any CPCB's directions shall be deposited in a separate bank account. The amount accumulated will be utilized for Protection of Environment. The following schemes were identified, which may be considered for utilization of Environmental Compensation Fund:

- a. Industrial Inspections for compliance verification
- b. Installation of Continuous water quality monitoring stations / Continuous ambient air quality monitoring stations for strengthening of existing monitoring network
- c. Preparation of Comprehensive Industry Documents on Industrial Sectors / clean technology
- d. Investigations of environmental damages, preparation of DPRs
- e. Remediation of contaminated sites
- f. Infrastructure augmentation of Urban Local Bodies (ULBs) /capacity building of SPCBs/PCCs

The above proposed list may include other schemes also, depending upon the requirement.

Considering the availability of accumulated funds, CPCB will finalize the scheme, keeping in mind the priority, to utilize the funds of Environmental Compensation.

1.4.2. When Environmental Compensation is assessed based on actual damage to the environment by Expert Organization/ Agency:

The amount of Environmental Compensation under this case will be remediation costs, measures requiring immediate and short-term actions, compensation towards loss of ecology, etc., and will be utilized exclusively for the purpose at specific site, based on the detailed investigations by the Expert Organizations/ agencies.

1.5 Recommendations

The Committee made following recommendations:

- 1.5.1 To begin with, Environmental Compensation may be levied by CPCB only when CPCB has issued the directions under the Environment (Protection) Act, 1986. In case of a, b and c, Environmental Compensation may be calculated based on the formula "EC = PI x N x R x S x LF", wherein, PI may be taken as 80, 50 and 30 for red, orange and green category of industries, respectively, and R may be taken as 250. S and LF may be taken as prescribed in the preceding paragraphs.

- 1.5.2 In case of d, e and f, the Environmental Compensation may be levied based on the detailed investigations by Expert Institutions/Organizations.
- 1.5.3 The Hon'ble Supreme Court in its order dated 22.02.2017 in the matter of Paryavaran Suraksha Samiti and another v/s Union of India and others (Writ Petition (Civil) No. 375 of 2012), directed that all running industrial units which require "consent to operate" from concerned State Pollution Control Board, have a primary effluent treatment plant in place. Therefore, no industry requiring ETP, shall be allowed to operate without ETP.
- 1.5.4 EC is not a substitute for taking actions under EP Act, Water Act or Air Act. In fact, units found polluting should be closed/prosecuted as per the Acts and Rules.

Chapter-II: Environmental Compensation to be levied on all violations of Graded Response Action Plan (GRAP) in NCR.

2.1 Background

The CPCB In-house Committee also discussed that the EC shall also be levied on all violations of Graded Response Action Plan (GRAP) in NCR. The implementing agencies for each activity have been identified and the EC will be levied on these agencies. These violations attract graded amounts of EC depending on the state of ambient air quality, which is given in table below:

Table No. 2.1: Environmental Compensation to be levied on all violations of Graded Response Action Plan (GRAP) in Delhi-NCR.

Activity	State Of Air Quality	Environmental Compensation ()
Industrial Emissions	Severe +/-Emergency	Rs 1.0 Crore
	Severe	Rs 50 Lakh
	Very Poor	Rs 25 Lakh
	Moderate to Poor	Rs 10 Lakh
Vapour Recovery System (VRS) at Outlets of Oil Companies		
i. Not installed	Target Date	Rs 1.0 Crore
ii. Non-functional	Very poor to Severe +	Rs 50.0 Lakh
	Moderate to Poor	Rs 25.0 Lakh
Construction sites (Offending plot more than 20,000 Sq.m.)	Severe +/-Emergency	Rs 1.0 Crore
	Severe	Rs 50 Lakh
	Very Poor	Rs 25 Lakh
	Moderate to Poor	Rs 10 Lakh
Solid waste/ garbage dumping in Industrial Estates	Very poor to Severe +	Rs 25.0 Lakh
	Moderate to Poor	Rs 10.0 Lakh
Failure to water sprinkling on unpaved roads		
a) Hot-spots	Very poor to Severe +	Rs 25.0 Lakh
b) Other than Hot-spots	Very poor to Severe +	Rs 10.0 Lakh

2.2 Action Plan for Utilization of Environmental Compensation Fund

EC levied on all violations of Graded Response Action Plan (GRAP) in Delhi NCR will be deposited in the same fund and will be utilized in the same manner as mentioned in para 1.4.1 of Chapter-I of this report.

Chapter-III: Environmental Compensation to be levied in case of failure of preventing the pollutants being discharged in water bodies and failure to implement waste management rules

3.1 Background

The Hon'ble Supreme Court in its order dated 22.02.2017 in the matter of Paryavaran Suraksha Samiti and another v/s Union of India and others (Writ Petition (Civil) No. 375 of 2012), directed State Governments (including the concerned Union Territories) to set-up Sewage Treatment Plants (STPs), which are already under implementation, within the time lines already postulated. Further, the STPs, which are yet to set-up, to be completed within a period of three years, from today, i.e. by 22.02.2020.

The Hon'ble NGT in its order dated 06.12.2018 (**Annexure-III**) in the matter of Court of its own motion v/s State of Karnataka (Original Application No. 125/2017 and M.A. No. 1337/2018) has given following directions:

“Since failure of preventing the pollutants being discharged in water bodies (including lakes) and failure to implement solid and other waste management rules are too frequent and widespread, the CPCB must lay down specific guidelines to deal with the same, throughout India, including the scale of compensation to be recovered from different individuals/authorities, in addition to or as alternative to prosecution. The scale may have slabs, depending on extent of pollution caused, economic viability, etc. Deterrent effect for repeated wrongs may also be provided.”

3.2 Ideology of Environmental Compensation Formula

In compliance of the directions of the Hon'ble Tribunal, the Committee deliberated on the issue of environmental compensation to be recovered from individuals/authorities in case of failure of preventing the pollutants being discharged in water bodies and failure to implement solid and other waste management rules. The Committee has suggested that environmental compensation in these cases should be comprised of two components i.e.

1. Cost saved/benefits achieved by the concerned individual/authority by not having proper waste/sewage management system; and
2. Cost to the environment (environmental externality) due to untreated/partially treated waste/sewage because of insufficient capacity of waste/sewage management/treatment facility.

Cost saved/benefits achieved by not having proper waste/sewage management system includes the interest on capital cost of the waste/sewage management facility and daily operation and maintenance (O&M) cost associated with the facility.

The Committee suggested that annual interest rate as 10% on loan amount, borrowed by concerned individual/authority for setting-up waste/sewage management facility, may be assumed as Capital Cost Factor for calculation of environment compensation. Further, as whole O&M cost is saved by concerned individual/authority for not managing required waste/sewage management system, 100% of the O&M cost saved may be considered as O&M cost factor.

Therefore, generalized formula for Environmental Compensation may be described as:

$$EC = \text{Capital Cost Factor} \times \text{Marginal Average Capital Cost for Establishment of Waste or Sewage Management or Treatment Facility} \times (\text{Waste or Sewage Management or Treatment Capacity Gap}) + \text{O\&M Cost Factor} \times \text{Marginal Average O\&M Cost} \times (\text{Waste or Sewage Management or Treatment Capacity Gap}) \times \text{No. of Days for which facility was not available} + \text{Environmental Externality}$$

Cost to the environment due to untreated/partially treated waste/sewage discharge by concerned individual/authority may be assumed as recommended by the committee, which is mentioned below:

Table No. 3.1: Environmental externality for untreated/partially treated sewage discharge

Sewage Treatment Capacity Gap (MLD)	Marginal Cost of Environmental Externality (Rs. per MLD/day)	Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. Per Day)
Up to 200	75	Min. 0.05, Max. 0.10
201-500	85	Min. 0.25, Max. 0.35
501 and above	90	Min. 0.60, Max. 0.80

Table No. 3.2: Environmental externality for improper municipal solid waste management

Municipal Solid Waste Management Capacity Gap (TPD)	Marginal Cost of Environmental Externality (Rs. per ton per day)	Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. Per Day)
Up to 200	15	Min. 0.01, Max. 0.05
201-500	30	Min. 0.10, Max. 0.15
501-1000	35	Min. 0.25, Max. 0.35
1001-2000	40	Min. 0.50, Max. 0.60
Above 2000		Max. 0.80

The Committee further decided to fix a cap for minimum and maximum cost for capital and O&M component for Environmental Compensation, which are given in below tables:

Table No. 3.3: Minimum and Maximum EC to be levied for untreated/partially treated sewage discharge

Class of the City/Town	Mega-City	Million-plus City	Class-I City/Town and others
Minimum and Maximum values of EC (Total Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 2000 Max. 20000	Min. 1000 Max. 10000	Min. 100 Max. 1000
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	Min. 2 Max. 20	Min. 1 Max. 10	Min. 0.5 Max. 5

Table No. 3.4: Minimum and Maximum EC to be levied for improper municipal solid waste management

Class of the City/Town	Mega-City	Million-plus City	Class-I City/Town and others
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 1000 Max. 10000	Min. 500 Max. 5000	Min. 100 Max. 1000
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	Min. 1.0 Max. 10.0	Min. 0.5 Max. 5.0	Min. 0.1 Max. 1.0

The application of formula for calculation of EC may be further understood with the example of two typical cases.

3.3 Environment Compensation for Discharge of Untreated/Partially Treated Sewage by Concerned Individual/Authority:

BIS IS-1172:1993 suggests that for communities with population above 100,000, minimum of 150 to 200 lpcd of water demand is to be supplied. Further, 85% of return rate (CPHEEO Manual on Sewerage and Sewage Treatment Systems, 2013), may be considered for calculation of total sewage generation in a city. CPCB Report on "Performance evaluation of sewage treatment plants under NRCD, 2013", describes that the capital cost for 1 MLD STP ranges from 0.63 Cr. to 3 Cr. and O&M cost is around Rs. 30,000 per month. After detail deliberations, the Committee suggested to assume capital cost for STPs as Rs. 1.75 Cr/MLD (marginal average cost). Further, expected cost for conveyance system is assumed as Rs. 5.55 Cr./MLD (marginal average cost) and annual O&M cost as 10% of the combined capital cost. Population of the city may be taken as per the latest Census of India. Based on these assumptions, Environmental Compensation to be levied on concerned ULB may be calculated with the following formula:

EC= Capital Cost Factor x [Marginal Average Capital Cost for Treatment Facility x (Total Generation-Installed Capacity) + Marginal Average Capital Cost for Conveyance Facility x (Total Generation -Operational Capacity)] + O&M Cost Factor x Marginal Average O&M Cost x (Total Generation- Operational Capacity) x No. of Days for which facility was not available + Environmental Externality x No. of Days for which facility was not available

Alternatively;

EC (Lacs Rs.) = [17.5(Total Sewage Generation – Installed Treatment Capacity) + 55.5(Total Sewage Generation-Operational Capacity)] + 0.2(Sewage Generation-Operational Capacity) x N + Marginal Cost of Environmental Externality x (Total Sewage Generation-Operational Capacity) x N

Where; N= Number of days from the date of direction of CPCB/SPCB/PCC till the required capacity systems are provided by the concerned authority

Quantity of Sewage is in MLD

Table No. 3.5: Sample calculation for EC to be levied for discharge of untreated/partial treated Sewage

City	Delhi	Agra	Gurugram	Ambala
Population (2011)	1,63,49,831	17,60,285	8,76,969	5,00,774
Class	Mega-City	Million-plus City	Class-I Town	Class-I Town
Sewage Generation (MLD) (as per the latest data available with CPCB)	4195	381	486	37
Installed Treatment Capacity (MLD) (as per the latest data available with CPCB)	2500	220	404	45.5
Operational Capacity (MLD) (as per the latest data available with CPCB)	1900	140	300	24.5
Treatment Capacity Gap (MLD)	2295	241	186	12.5
Calculated EC (capital cost component for STPs) in Lacs Rs.	29662.50	2817.50	1435.00	0.00
Calculated EC (capital cost component for Conveyance System) in Lacs. Rs.	127372.50	13375.50	10323.00	693.75
Calculated EC (Total capital cost component) in Lacs Rs.	157035.00	16193.00	11758.00	693.75
Minimum and Maximum values of EC (Total Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 2000 Max. 20000	Min. 1000 Max. 10000	Min. 100 Max. 1000	Min. 100 Max. 1000
Final EC (Total Capital Cost Component) in Lacs Rs.	20000.00	10000.00	1000.00	693.75
Calculated EC (O&M Component in Lacs Rs./day)	459.00	48.20	37.20	2.50
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	Min. 2 Max. 20	Min. 1 Max. 10	Min. 0.5 Max. 5	Min. 0.5 Max. 5
Final EC (O&M Component) in Lacs. Rs./Day	20.00	10.00	5.00	2.50
Calculated Environmental Externality (Lacs Rs .Per Day)	2.0655	0.2049	0.1395	0.0094
Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. Per Day)	Min. 0.60 Max. 0.80	Min. 0.25 Max. 0.35	Min. 0.05 Max. 0.10	Min. 0.05 Max. 0.10
Final Environmental Externality (Lacs Rs. Per day)	0.80	0.25	0.10	0.05

3.4 Environment Compensation to be Levied on Concerned Individual/Authority for Improper Solid Waste Management:

It is known that estimated MSW generation is approximately 1.5 lakh MT/Day in India (MoHUA Report-2016). As per the principles of SWM Rules, 2016 and PWM Rules 2016, as amended in 2018, the total cost of Municipal Solid Waste management in a city/town includes cost for door to door collection, cost of segregation at source, cost for transportation in segregated manner, cost for processing of MSW and disposal through facility like composting, biomethanation, recycling, co-processing in cement kilns etc.

In view of above, it is estimated that the total cost of processing and treatment of MSW for a city having population size of 1 lakh and generating approximately 50 tons/day of MSW is Rs.15.5 Crores, including capital cost (one time) and O & M cost for one year. The expenditure for subsequent years would be only Rs. 3.5 crores/annum.

CPCB sponsored a survey to ascertain the status of municipal solid waste disposal in 59 cities/towns of India. The survey was conducted by the Environment Protection Training Research Institute (EPTRI), Hyderabad. As per the survey, it is estimated that solid waste generated in small, medium and large cities and towns is about 0.1 kg (Class-III), 0.3-0.4 kg (Class-II) and 0.5 kg (Class-I) per capita per day respectively. The committee opined that 0.6 kg/day, 0.5 kg/day and 0.4 kg/day per capita waste generation may be assumed for mega-cities, million-plus UAs/towns and Class-I UA/Towns respectively for calculation of environmental compensation purposes. Based on these assumptions, Environmental Compensation to be levied on concerned ULB may be calculated with the following formula:

EC = Capital Cost Factor x Marginal Average Cost for Waste Management x (Per day waste generation-Per day waste disposed as per the Rules) + O&M Cost Factor x Marginal Average O&M Cost x (Per day waste generation-Per day waste disposed as per the Rules) x Number of days violation took place + Environmental Externality x N

Where;

Waste Quantity in tons per day (TPD)

N= Number of days from the date of direction of CPCB/SPCB/PCC till the required capacity systems are provided by the concerned authority

Simplifying;

EC (Lacs Rs.) = 2.4(Waste Generation - Waste Disposed as per the Rules) +0.02 (Waste Generation - Waste Disposed as per the Rules) x N + Marginal Cost of Environmental Externality x (Waste Generation - Waste Disposed as per the Rules) x N

Table No. 3.6: Sample calculation for EC to be levied for improper management of Municipal Solid Waste

City	Delhi	Agra	Gurugram	Ambala
Population (2011)	1,63,49,831	17,60,285	8,76,969	5,00,774
Class	Mega-City	Million-plus City	Class-I Town	Class-I Town
Waste Generation (kg. per person per day)	0.6	0.5	0.4	0.4
Waste Generation (TPD)	9809.90	880.14	350.79	200.31
Waste Disposal as per Rules (TPD) (<i>assumed as 25% of waste generation for sample calculation</i>)	2452.47	220.04	87.70	50.08
Waste Management Capacity Gap (TPD)	7357.42	660.11	263.09	150.23
Calculated EC (capital cost component) in Lacs. Rs.	17657.82	1584.26	631.42	360.56
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 1000 Max. 10000	Min. 500 Max. 5000	Min. 100 Max. 1000	Min. 100 Max. 1000
Final EC (capital cost component) in Lacs. Rs.	10000.00	1584.26	631.42	360.56
Calculated EC (O&M Component) in Lacs. Rs./Day	147.15	13.20	5.26	3.00
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./Day)	Min. 1.0 Max. 10.0	Min. 0.5 Max. 5.0	Min. 0.1 Max. 1.0	Min. 0.1 Max. 1.0
Final EC (O&M Component) in Lacs. Rs./Day	10.00	5.00	1.00	1.00
Calculated Environmental Externality (Lacs Rs. Per Day)	2.58	0.18	0.03	0.02
Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. per day)	Max. 0.80	Min. 0.25 Max. 0.35	Min. 0.01 Max. 0.05	Min. 0.01 Max. 0.05
Final Environmental Externality (Lacs Rs. per day)	0.80	0.25	0.03	0.02

3.3 Action Plan for Utilization of Environmental Compensation Fund

EC levied in case of failure of preventing the pollutants being discharged in water bodies and failure to implement waste management rules will be deposited in the same fund and will be utilized in the same manner as mentioned in para 1.4.1 of Chapter-I of this report.

3.4 Recommendations

1. The Committee recommended that to begin with, Environmental Compensation to be recovered from individuals/authorities in case of failure of preventing the pollutants being discharged in water bodies and failure to implement solid waste management rules may be calculated with the methodology described in the report.
2. If mixing of Bio-medical Waste or Hazardous Waste is found in Municipal Solid Waste than capital cost component of EC may be increased by a multiplication factor of 1.5.

3. In order to include deterrent effect for continuous violations, component of O&M and Environmental Externality in EC formula may be increased on exponential basis by 2, 4, and 8 times after every six-months, beyond the time prescribed by authority for ensuring complete treatment of sewage/waste of the city/town.

Chapter-IV: Environmental Compensation in Case of Illegal Extraction of Ground Water

4.1 Background

The Hon'ble National Green Tribunal (NGT), Principal Bench in the matter of Shailesh Singh v/s Central Ground Water Board & Ors. (Original Application No. 327/2018) vide order dated 03/01/2019 (**Annexure-V**) directed Central Pollution Control Board (CPCB) that:

“CPCB may constitute a mechanism to deal with individual cases of violation of norms, as existed prior to Notification of 12/12/2018, to determine the environment compensation to be recovered or other coercive measures to be taken, including prosecution, for past illegal extraction of ground water, as per law.”

4.2 Constitution of the Committee

In compliance to Hon'ble NGT dated 03/01/2019, CPCB constituted a committee under the Chairmanship of Shri A. Sudhakar, DH, WQM-I Division with Shri P. K. Gupta, DH, IPC-VI, Shri Vishal Gandhi, Sc. D, UPC-I Division and Smt. Suniti Parashar, Scientist B, WQM-I Division as members. The committee was asked to deliberate on this issue and come up with draft formulation of mechanism to determine the Environmental Compensation for illegal extraction of ground water.

4.3 Methodology for Assessing Environmental Compensation

The committee discussed the issue on 07/02/2019, 07/03/2019 and 20/3/2019. The committee deliberated on the issue of Environmental Compensation to be recovered from individuals/industries such as domestic, packaging drinking water units, mining & infrastructure projects and industrial units in case of illegal extraction of ground water. The Guidelines/Criteria for evaluation of proposals/requests for Ground Water Abstraction, 2015 were also discussed and based on this further formulation to levy Environmental Compensation has been evolved.

4.4 Ideology of Environmental Compensation w.r.to illegal extraction of ground water

Ground water is becoming an increasingly scarce resource because of its unabated and indiscriminate over-exploitation. Growth in ground water exploitation, however, has led to a steep fall in water table in several parts of the country. Use of ground water is becoming unsustainable day by day. The falling water table is a matter of special concern since it tends to reduce the accessibility of the resource to small and marginal farmers due to increase in costs of extractions.

Specific conditions applicable in Notified/Non-Notified areas for various users, as mentioned in Guidelines/Criteria for evaluation of proposals/requests for Ground Water Abstraction, 2015 are given below:

For Notified Areas:

1. Permission to abstract ground water through any energized means will not be accorded for any purpose other than drinking water.

2. Central Ground Water Authority (CGWA) so far has notified 162 areas, in the country for the purpose of regulation of ground water development.
3. Regulation of Ground Water development in Notified areas is through District Administrative Heads assisted by Advisory Committees under the provisions of Section 4 of the Environment (Protection) Act, 1986.
4. In Notified areas, ground water use in individual houses, infrastructure complexes like group housing societies, hospitals, schools etc. and drinking water requirements of workers in industries can be allowed.
5. NOC for ground water withdrawal will be considered only if Water Supplying Department is not providing adequate water in the area/premises. Proof for this is to be produced from the concerned authority by the applicant.
6. For individual houses, the maximum diameter of the tube-well should be restricted to 4 inch only and the capacity of the pump should not exceed 1HP. For infrastructure projects, maximum diameter of the ground water abstraction structures should be restricted to 150 mm (6 inches) only and capacity of the pump should not exceed 5 HP.
7. Any violation of the above conditions will attract legal action under Section 15 of the Environment (Protection) Act, 1986.

For Non-Notified Areas:

NOC for ground water withdrawal will be considered for industries/infrastructure/packaging as per safe, semi critical, critical and over-exploited criteria.

4.5 Formula for Environmental Compensation for illegal extraction of ground water

The committee decided that the formula should be based on water consumption (Pump Yield & Time duration) and rates for imposing Environmental Compensation for violation of illegal abstraction of ground water. The committee has proposed following formula for calculation of Environmental Compensation (EC_{GW}):

EC_{GW}	=	Water Consumption per Day x No. of Days x Environmental Compensation Rate for illegal extraction of ground water (ECR_{GW})
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Where water Consumption is in m^3/day and ECR_{GW} in $Rs./m^3$

Yield of the pump varies based on the capacity/power of pump, water head etc. For reference purpose, yield of the pump may be assumed as given in **Annexure-VI**.

Time duration will be the period from which pump is operated illegally.

In case of illegal extraction of ground water, quantity of discharge as per the meter reading or as calculated with assumptions of yield and time may be used for calculation of EC_{GW} .

4.6 Environmental Compensation Rate (ECR_{GW}) for illegal use of Ground Water

The committee decided that the Environmental Compensation Rate (ECR_{GW}) for illegal extraction of ground water should increase with increase in water consumption as well as water scarcity in the area. Further, ECR_{GW} are kept relaxed for drinking and domestic use as compared to other uses, considering the basic need of human being.

As per CGWB, safe, semi-critical, critical and over-exploited areas are categorized from the ground water resources point of view (CGWB, 2017). List of safe, semi-critical, critical and over-exploited areas are available on the website of CGWB and can be accessed from- <http://cgwa-noc.gov.in/LandingPage/NotifiedAreas/CategorizationOfAssessmentUnits.pdf#ZOOM=150>.

Environmental Compensation Rates (EC_{GW}) for illegal use of ground water (EC_{GW}) for various purposes such as drinking/domestic use, packaging units, mining and industrial sectors as finalized by the committee are given in tables below:

4.6.1 EC_{GW} for Drinking and Domestic use:

Drinking and Domestic use means uses of ground water in households, institutional activity, hospitals, commercial complexes, townships etc.

Sl. No.	Area Category	Water Consumption (m^3/day)			
		<2	2 to <5	5 to <25	25 & above
Environmental Compensation Rate (EC_{GW}) in Rs./ m^3					
1	Safe	4	6	8	10
2	Semi Critical	12	14	16	20
3	Critical	22	24	26	30
4	Over-Exploited	32	34	36	40
Minimum EC_{GW}=Rs 10,000/- (for households) and Rs. 50,000 (for institutional activity, commercial complexes, townships etc.)					

4.6.2 EC_{GW} for Packaged drinking water units:

Sl. No.	Area Category	Water Consumption (m^3/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
Environmental Compensation Rate (EC_{GW}) in Rs./ m^3					
1	Safe	12	18	24	30
2	Semi critical	24	36	48	60
3	Critical	36	48	66	90
4	Over-exploited	48	72	96	120
Minimum EC_{GW}=Rs 1,00,000/-					

4.6.3 EC_{GW} for Mining, Infrastructure and Dewatering Projects

Sl. No.	Area Category	Water Consumption (m^3/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
Environmental Compensation Rate (EC_{GW}) in Rs./ m^3					
1	Safe	15	21	30	40
2	Semi critical	30	45	60	75
3	Critical	45	60	85	115
4	Over-exploited	60	90	120	150
Minimum EC_{GW}=Rs 1,00,000/-					

4.6.4 ECR_{GW} for Industrial Units:

Sl. No.	Area Category	Water Consumption (m ³ /day)			
		<200	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECR _{GW}) in Rs./m ³			
1	Safe	20	30	40	50
2	Semi critical	40	60	80	100
3	Critical	60	80	110	150
4	Over-exploited	80	120	160	200
Minimum EC_{GW}=Rs 1,00,000/-					

For better understanding of implementation of EC_{GW} policy, some example calculations are given below:

Example No. 1 (For drinking and domestic Use):

It is observed that a household in safe zone is extracting ground water illegally from past 2 year and 3 months with the help of 1 HP pump, dia 4 inches and head as 25 meter. It is assumed that the house-owner runs the pump for 0.5 hr/day. What Environmental Compensation (EC_{GW}) will be charged to the owner?

Solution: Pump Yield (Please refer Annexure-VI) = 3 m³/hr

Daily Consumption = 3 x 0.5 = 1.5 m³

ECR_{GW} = 4 Rs./m³ (Please refer para 4.6.1)

EC to be levied = 4 x 1.5 = 6 Rs./day

Total time period = 820 days

Then, EC_{GW} = 6 x 820

Calculated EC_{GW} = 4,920 Rs.

EC_{GW} to be levied = 10,000 Rs. (minimum prescribed EC_{GW}, please refer para 4.6.1)

Example 2 (For Industrial Units):

It is observed that an industry in critical zone is extracting ground water illegally from past 1 year with the help of 5 HP pump, dia 6 inches and head as 50 meter. It is assumed that the industry runs the pump for 3 hrs/day. What Environmental Compensation (EC_{GW}) will be charged to the owner?

Solution: Pump Yield (Please refer Annexure-VI) = 12 m³/hr

Daily Consumption = 12 x 3 = 36 m³/day

ECR_{GW} = 60 Rs./m³ (Please refer para 4.6.4)

EC to be levied = 60 x 36 = 2,160 Rs./day

Total time period = 365 days

Then, EC_{GW} = 2,160 x 365

EC_{GW} = 7,88,400 Rs.

4.7 Relaxation

Central Ground Water Authority (CGWA) reserves to right to relax or interpret these mechanisms in case of any exigency or situation of National strategic importance, as per Guidelines/Criteria for evaluation of proposals/requests for Ground Water Abstraction, 2015.

4.8 Recommendations

The committee has given following recommendations:

- The minimum Environmental Compensation for illegal extraction of ground water for domestic purpose will be Rs. 10,000, for institutional/commercial use will be 50,000 and for other uses will be 1,00,000.
- In case of fixation of liability, it always lies with current owner of the premises where illegal extraction is taking place.
- Time duration may be assumed to be one year in case where no evidence for period of installation of bore well could be established.
- For Drinking and Domestic use, where metering is not present but storage tank facility is available, minimum water consumption per day may be assumed as similar to the storage capacity of the tank.
- For industrial ground water use, where metering is not available, water consumption may be assumed as per the consent conditions. Further, where in case industry is operating without consent, water consumption may be calculated based on the plant capacity (on the recommendation of SPCB/PCC, if required). SPCB/PCC may bring the issue of illegal extraction of ground water in industries in to the notice of CGWA for appropriate action by CGWA.
- Authorities assigned for levy EC and taking penal action are listed below:

S. No.	Actions	Authority
1.	To seal the illegal bore-well/tube-well to stop extraction of water and further closure of project	District Collector
2.	To levy EC _{GW} as per prescribed method	District Collector, CGWA
3.	To levy EC on water pollution, as per the method prescribed in report of CPCB- "EC on industrial pollution"	CPCB/SPCB/PCC
4.	Prosecution of violator	CGWA under EP Act SPCB/PCC under Air and Water Act

- CGWA may maintain a separate account for collection and utilization of fund, collected through the prescribed methodology in this report.

PUNJAB POLLUTION CONTROL BOARD
ZONAL OFFICE JALANDHAR

Office Dispatch No: 2852 Registered/Speed Post Date: 4/6/19

Industry Registration ID: R12HSP41002 Application No:9516261

To,

Pavan Khaitan
Village Salla Khurd, Tehsil Garhshankar
Hoshiarpur, Punjab-144529

Subject: Renewal of Consent to Operate an outlet U/s. 25/26 of Water (Prevention & Control of Pollution) Act, 1974 for discharge of effluent.

With reference to your application for obtaining Renewal of 16 ½ Consent to Operate 16 ½ an outlet for discharge of the effluent u/s 25/26 of Water (Prevention & Control of Pollution) Act, 1974, you are hereby authorised to operate an industrial unit for discharge of the effluent (s) arising out of your premises, subject to the Terms and Conditions as mentioned in this Certificate.

1. Particulars of Consent to Operate under Water Act, 1974 granted to the industry

Consent to Operate Certificate No.	CTOW/Renewal/HSP/2019/9516261
Date of Issue:	04/06/2019
Date of expiry:	03/06/2020
Certificate Type:	Renewal
Previous CTO No. & Validity:	R14HSPCTOW1520756 From 29/08/2014 To: 31/03/2019

2. Particulars of the Industry

Name & Designation of the Applicant	R.p. Puri, (Associate President)
Address of Industrial premises	Kuantun Papers Ltd. Salla Khurd, Tehsil Garhshankar, Garhshankar, Hoshiarpur-144529
Capital Investment of the Industry	63447.0 lakhs

Category of Industry	Red
Type of Industry	Pulp & Paper
Scale of the Industry	Large
Office District	Hoshiarpur
Consent Fee Details	<p>The industry has deposited Rs.564500/- under Air Act vide UTR.</p> <p>No.SBIN119058821251 dated 27.02.2019</p> <p>Rs.564500/- under Water Act vide UTR No. SBIN119058823038 dated 27.02.2019</p> <p>Rs.282000/- under Air Act vide, UTR No. SBIN119058803925 Dated 27.02.2019 as NOC regularization fee.</p> <p>Adequate for the period upto 31.03.2020.</p>
Raw Material (Name with quantity per day)	<p>Agro Residue @ 413 T/day</p> <p>Woody Raw Material @ 134/day</p> <p>Purchased Pulp @ 75T/day</p> <p>Fillers @ 48T/day</p> <p>Cooking Chemicals (Caustic & White Liquor) @ 75T/day Total Chlorine (Elemental & Hypochlorite) @ 7.5T/day</p> <p>Elemental Chlorine @ 4T/day</p> <p>Hypochlorite @3.5T/day</p> <p>C102@ 4T/day</p> <p>Oxygen @4.3 T/day</p> <p>Hydrogen Peroxide (H2O2) @ 3.2T/day</p>
Produce (Name with quantity per day)	<p>Writing and Printing paper @ 450 Metric Tonnes/Day</p> <p>Co-generation Power @ 17.5 Megawatt</p>
By-Products, if any, (Name with quantity per day)	<p>Caustic Soda (White Liquor) @50 Metric Tonnes/Day</p> <p>Ligning @ 25 Metric Tonnes/Day.</p> <p>Precipated Calcium Carbonate Starry (BD) @69 Metric Tonnes/Day</p> <p>Soda Ash@35 Metric</p>

	Tonnes/Day ETA Sludge Board @ 22Metric Tonnes/Day Calcium Oxide @ 80Metric Tonnes/Day
Details of the machinery and processes	As per project report
Details of the Effluent Treatment Plant	Trade Effluent @ 17000.0 KLD Domestic Effluent @ 114.0 KLD
Mode of Disposal	Approx. 110 Acres within premises for plantation, 2050 acres in nearby villages for irrigation Septic Tank Followed by ETP
Standards to be achieved under Water (Prevention & Control of Pollution) Act, 1974	As prescribed by the Board.

Sd/-

04.06/2019

(Samita)

Environmental Engineer

For & on behalf

Of

(Punjab Pollution Control Board)

Endst. No.:

Dated:

A copy of the above is forwarded to the following for information and
necessary action please.

EERO Hoshiarpur.

Sd/-

04.06/2019

(Samita)

Environmental Engineer

For & on behalf

Of

(Punjab Pollution Control Board)

TERMS AND CONDITIONS

A. GENERAL CONDITIONS

1. This consent is not valid for getting power load from the Punjab State Power Corporation Limited or for getting loan from the financial institutions.
2. The industry shall apply for renewal/further extension in validity of consent atleast two months before expiry of the consent.
3. The industry shall ensure that the effluent discharging through the authorized outlet shall confirm to the prescribed standards as applicable from time to time.
4. The industry shall plant minimum of three suitable varieties of trees at the density of not less than 1000 trees per hectare all along the boundary of the industrial premises.
5. The achievement of the adequacy and efficiency of the effluent treatment plant/pollution control devices/re-circulation system installed shall be the entire responsibility of the industry.
6. The industry shall ensure that the Hazardous Wastes generated from the premises are handled as per the provisions of the Hazardous Wastes (Management, Handling and Trans boundary Movement) Rules, 2008 as amended time to time, without any adverse effect on the environment, in any manner.
7. The responsibility to monitor the effluent discharged from the authorized outlet and to maintain a record of the same rests with the industry. The Board shall only test check the accuracy of these reports for which the industry shall deposit the samples collection and testing fee with the Board as and when required.
8. The industry shall submit balance sheet of every financial year to the concerned Regional Office by 30th June of every year.
9. The industry shall submit a yearly certificate to the effect that no addition/up-gradation/modification/modernization has been carried out during the previous year otherwise the industry shall apply for the varied consent.
10. During the period beginning from the date of issuance and the date of expiration of this consent, the applicant shall not discharge floating solids or visible foam.
11. Any amendments/revisions made by the Board in the tolerance limits for discharges shall be applicable to the industry from the date of such amendments/revisions.
12. The industry shall not change or alter the manufacturing process(es) so as to change the quality and/or quantity of the effluents generated without the written permission of the Board.
13. Any upset conditions in the plant/plants of the factory, which is likely to result in increased effluent and/or result in violation of the standards lay down by the Board shall be reported to the

- Environmental Engineer, Punjab Pollution Control board of concerned Regional Office immediately failing which any stoppage and upset conditions that come to the notice of the Board its officers, will be deemed to be intentional violation of the conditions of consent.
14. The industry shall provide terminal manhole(s) at the end of each collection system and a manhole upstream of final outlet(s) out of the premises of the industry for measurement of flow and for taking samples.
 15. The industry shall for the purpose of measuring and recording the quantity of water consumed and effluent discharged, affix meters of such standards and at such places as approved by the Environmental Engineer, Punjab Pollution Control Board of the concerned Regional Office.
 16. The industry shall maintain record regarding the operation of effluent treatment plant i.e. record of quantity of chemicals and energy utilized for treatment and sludge generated from treatment so as to satisfy the Board regarding regular and proper operation of pollution control equipment.
 17. The industry shall provide online monitoring equipment --- for the parameters as decided by concerned Regional Office with the effluent treatment plant/air pollution control devices installed, if applicable.
 18. The pollution control devices shall be interlocked with the manufacturing process of the industry.
 19. The authorized outlet and mode of disposal shall not be changed without the prior written permission of the Board.
 20. The industry shall comply with the conditions imposed by the SEIAA/MOEF in the environmental clearance granted to it as required under EIA notification dated 14/9/06, if applicable.
 21. The industry shall obtain and submit Insurance cover as required under the Public Liability Insurance Act, 1991.
 22. The industry shall not use any unauthorized outlet(s) for discharging effluents from its premises. All unauthorized outlets, if any, shall be connected to the authorized outlet within one month from the date of issue of this consent.
 23. The industry shall make necessary arrangements for the monitoring of effluent being discharged by the industry and shall monitor its effluents:-
 - (i) Once in Year for Small Scale Industries.
 - (ii) Four in a Year for Large/Medium Scale Industries.
 - (iii) The industry will submit monthly reading data of the separate energy meter installed for running of effluent treatment plant/re-

- circulation system to the concerned Regional Office of the Board. by the 5th of the following month.
24. The industry shall provide electromagnetic flow meters at the source of water supply, at inter/outlet of effluent treatment plant within one month and shall maintain the record of the daily reading and submit the same to the concerned Regional Office by the 5th of the following month.
 25. The Board reserves the right to revoke this consent at any time in case the industry is found violating any of the conditions of this consent and/or the provisions of Water (Prevention & control of Pollution) Act, 1974 as amended from time to time.
 26. 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 or Local Laws or Regulations.
 27. The consent does not authorize or approve the construction of any physical structures or facilities for undertaking of any work in any natural watercourse.
 28. Nothing in this consent shall be deemed to either preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities or penalties to which the applicant is or may be subjected under this or any other Act.
 29. The industry shall make necessary and adequate arrangements to hold back the effluent in case of failure of septic tank.
 30. The diversion or by pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this consent is prohibited except.
 - (i) Where unavoidable to prevent loss of life or some property damage or
 - (ii) Where excessive storm drainage or run off would damage facilities necessary for compliance with terms and conditions of this consent. The applicant shall immediately notify the consent issuing authority in writing of each such diversion or by-pass.
 31. The industry shall ensure that no water pollution problem is created in the area due to discharge of effluents from its industrial premises.
 32. The industry shall comply with the code of practice as notified by the Government/Board for the type of industries where the sitting guidelines/code of practice have been notified.
 33. Solids, sludge, filter backwash or other pollutant removed from or resulting from treatment or control of waste waters shall be disposed off in such a manner to prevent any pollutants from such materials from entering into natural water.

34. The industry shall re-circulate the entire cooling water and shall also re-circulate/reuse to the maximum extent the treated effluent in processes.
35. The industry shall make necessary and adequate arrangements to hold back the effluent in case of failure of re-circulation system effluent treatment plant.
36. The industry shall make proper disposal of the effluent so as to ensure that no stagnation occurs inside and outside the industrial premises during rainy season and no demand period.
37. Where excessive storm water drainage or run off. Would damage facilities necessary for compliance with terms and conditions of this consent, the applicant shall immediately notify the consent issuing authority in writing of each such diversion or bye-pass.
38. The industry shall submit a detailed plan showing therein the distribution system for conveying waste-water for application on land for irrigation along with the crop pattern for the year.
39. The industry shall ensure that the effluent discharged by it is toxicity free.
40. The industry shall not irrigate the vegetable crops with the treated effluents which are used/consumed as raw.
41. Drains causing oil & grease contamination shall will be segregated. Oil & grease trap shall be provided to recover oil & grease from the effluent.
42. The industry shall establish sufficient number of piezometer wells in consultation with the concerned Regional Office, of the Board to monitor the impact on the Ground Water Quantity due to the industrial operations, and the monitoring shall be submitted to the Environmental Engineer of the concerned Regional Office by the 5th of every month.
43. The industry shall ensure that its production capacity & quantity of trade effluent do not exceed the quantity mentioned in the consent and shall not carry out any expansion without the prior permission/NOC of the Board.

B. SPECIAL CONDITIONS

The industry will operate its unit for 3 months for curtailed production capacity i.e. 337.5 TPD of writing & printing paper to assess the adequacy of treatment system after taking the remedial measures.

Sd/-

04/6/2019

(Samita)

Environmental Engineer

For & on behalf

Of

(Punjab Pollution Control)

PUNJAB POLLUTION CONTROL BOARD
ZONAL OFFICE JALANDHAR
Website:- www.ppcb.gov.in

Registered Speed Post

Office Dispatch No. 2854

Dated 04.06.2019

Industry ID: R12HSP41002 Application No.: 9516158

To

R.P. Puri

Village Saila Khurd, Tehsil Garhshankar,

Garhshankar, Hoshiarpur,

Punjab 144529

Subject: Renewal of 'Consent to Operate u/s 21 of Air (Prevention & Control of Pollution) Act, 1981 for discharge of emission arising out of premises.

With reference to your application for obtaining Renewal of 'Consent to Operate' u/s 21 of Air (Prevention & Control of Pollution) Act, 1981, you are hereby, authorised to operate an industrial unit for discharge the emission(s) arising out of your premises subject to the Terms and Conditions as mentioned in this Certificate.

1. Particulars of 'Consent to Operate' under Air Act, 1981 granted to the industry.

Consent to Operate Certificate No. CTOA/Renewal/HSP/2019/9516158

Date of Issue 04.06.2019

Date of expiry 03.06.2020

Certificate type	Renewal
Previous CTO No. & Validity	R14HSPCTOA1542711, from 29.08.2014 to 31.03.2019

2. Particulars of the Industry

Name & Designation of the Applicant	r.P. Puri, (Associate President)
Address of Industrial premises	Kquantum Papers Ltd. Saila Khurd, Tehsil Garhshankar, Garhshankar, Hoshiarpur-144529
Capital Investment of the Industry	63447.0 lakhs
Category of Industry	Red
Type of Industry	Pulp & Paper
Scale of the Industry	Large
Office District	Hoshiarpur
Consent Fee Details	The Industry has deposited Rs. 564500/- under Air Act Vide UTR No. SBIN119058821251 DATED 27.02.2019, RS. 564500/- VIDE UTR NO. SBIN119058823038 Dated 27.02.2019 RS. 282000/- UNDER AIR Act vide UTR No. SBIN 119058803925 DATED 27.02.2019 as NOC Regularization Fee. adequate for the period up to 31.03.2020

Raw Material, name with quantity/paper day	Agro Residue @ 413 T/day	
	Woody Raw Materials @ 134 T/day	
	Purchased Pulp @ 75T/day	
	Fillers @ 48t/day	
	Cooking Chemicals (Caustic & White Liquor) @ 75 T/day	
	Total Chlorine (Elemental & Hypochlorite) @ 7.5 T/day	
	Elemental Chloride @ 4T/day	
	Hypochlorite @ 3.5 T/day	
	C1O2 @ 4 t/day	
	Oxygen @ 4.3 t/day	
	Hydrogen Peroxide (H2O2) @ 3.2 t/day	
	Products (Name with quantity/per day	Writing and Printing Papers @ 450 Metric Tonnes/Day
		Co-generation Power @ 17.5 Metric Tonnes/Day
By-products, if any, (Name with quantity/ per day	Caustic Soda (White Liquor) @ 50 Metric Tonnes/day	
	Soda Ash @ 35 Metric Tonnes/Day	
	Lignin @ 25 Metric Tonnes/Day	
	Precipitate Calcium Carbonate Slurry (BD) @ 69 Metric Tonnes/Day	
	ETA Sludge Board @ 22 Metric Tonnes/Day	
Calcium Oxide @ 80 Metric Tonnes/Day		

Details of the machinery and processes

As per project report

Quantity of fuel required in TPD and capacity of boilers / Furnace/ Thermo heater etc. Black Liquor @ 230 Metric T/Day Rich Husk @ 225 Metric T/Day Rich Husk @ 195 Metric T/Day or used coal @ 55 Metric Tonnes/Day

Type of Air Pollution Control Devices installed Electrostatic Precipitator,

Stack height provided with each boiler/thermo heater/Furnace etc Stack C (Recovery Boiler) @ 70 (Ground Level) 70 (Roof Level) Stanch B (Power Boiler @ 70 (Ground Level)/ 70 (Roof Level) stack A (Common for 2 Boilers) @ 52 (Ground Level)/52 (Roof Level)

Sources of emissions and type of Pollutants 1 No. recovery boiler @ 20 TPH
2 No. Boiler 26 TPH Each
3 No. Boiler 60 TPH

Standards to be achieved under Air (Prevention and Control of Pollution Act, 1981 As prescribed by the Board.

Sd/-

(SAMITA)

ENVIRONMENTAL ENGINEER FOR &

ON BHEALF OF

(PUNJAB POLLUTION COTNROL BAORD

04.06.2019

Endst. No.

A copy of the above is forwarded to the followign for information and necessary an action please

EERO Hoshiarpur.

Sd/-

(SAMITA)

ENVIRONMENTAL ENGINEER

TERMS AND CONDITONS

GENERAL CONDITIONS

1. This consent is not valid for getting power load from the PSEB or for getting loan from the financial institutions.
2. The Industry shall apply for renewal / extension of consent at least two months before expiry of the consent.
3. The industry shall not violate any of the norms prescribed under the Air (Prevention & Control of Pollution) Act, 1981, failing which, the consent shall be cancelled /revoked.
4. The achievement of adequacy and efficiently of the air pollution control devices installed shall be the entire responsibility of the industry.
5. The authorized fuel being used shall not be changed without the prior written permission of the Board.
6. The industry shall not discharge any fugitive emissions. All gases shall be emitted through a stack of suitable height as per the norms fixed by the Board form time to time.
7. The Industry shall provide port-holes, platforms and / or other necessary facilities as may be required for collecting samples of emissions from any chimney, flue or duct or any other outlets.

Specifications of the port holes shall be as under:-

The sampling ports shall be provided atleast 8 times

- i) chimney diameter downstream and 2 times upstream from the flow disturbance. For a rectangular cross section the equivalent

diameter (D_e) shall be calculated from the following equation to determine upstream, downstream distance:

$$D_e = 2 LW / (L+W)$$

Where L = length in mts. W = width in mts.

- ii) The sampling port shall be 7 to 10 cm in diameter.
8. The Industry shall put display Board indicating environmental data in the prescribed format at the main entrance gate.
9. The industry shall discharge all gases through a stack of minimum height as specified in the following standards laid down by the Board.

(i) Stack height for boiler plants

S.N.	Boiler with steam generating capacity	Stack Height
1.	Less than 2 ton/hr.	9 meters or 2.5 times the height of neighbouring building whichever is more
2.	More than 2 ton/hr. to 5 ton/hr.	12 meters
3.	More than 5 ton/hr. to 10 ton/hr.	15 meters
4.	More than 10 ton/hr. to 15 ton/hr.	18 meters
5.	More than 15 ton/hr. to 20 ton/hr.	21 meters

6.	More than 20 ton/hr. to 25 ton/hr.	24 meters
7.	More than 25 ton/hr. to 30 ton/hr.	27 meters
8.	More than 30 ton/hr.	30 meters or using the formula $H = 14 Qg^{0.3}$ Or $H = 74(QP)^{0.24}$

Note: Minimum Stack height in all cases shall be 9.0 mtr. Or as calculated from relevant formula whichever is more.

(i) For industrial furnaces and kilns, the criteria for selection of stack height would be based on fuel used for the corresponding steam generation.

(ii) Stack height for diesel generating sets.

Capacity of diesel generating set	Height of the stack.	
0-5 KVA	Height of the building	+1.5 mt.
50-100 KVA	Do-	+2.0 mt.
100-150 KVA	Do -	+2.5 mt.
150-200 KVA	Do -	+3.0 mt.
200-250 KVA	Do -	+3.5 mt.
250-300 KVA	Do -	+3.5 mt.

For higher KVA rating stack height H (in meter) shall be worked out according to the formula

$$H = h + 0.2 (KVA)^{0.5}$$

Where h = height of the building in meters where the generator set is installed.

10. The Pollution Control Devices shall be interlocked with the manufacturing process of the industry to ensure its regular operations.
11. The existing control equipment shall be altered or replaced in accordance with the direction of the Board, and no control equipment or chimney shall be altered or as the case may be erected or re erected except with the pervious approval of the Board.
12. The industries will provide canopy and adequate stack with the DG set so as to comply with the provisions of Notification No. GSR-371 E dated 17.05.2002 (amended form time to time) issue by MOEF under Environment (Protection) act, 1986.
13. The Govt. of Punjab, Department of Science, Technology & Environment vide its notification no. 4/46/92-3ST/2839 dated 29.12.1993 has put prohibition on the use of rice husk as fuel after 1.4. 1995 except the following:

"In the form of briquettes and use of rice husk in fluidized bed combustion. So the industry shall make the necessary arrangement to comply with the above notification."
14. The industry shall submit balance sheet of every financial year to the concerned Regional Office by 30th June of every year.
15. That the industry shall submit a yearly certificate to the effect that no addition / up gradation / modification modernization has been carried out during the previous year otherwise the industry shall apply for the varied consent.

16. (a) The industry shall ensure that at any time the emission do not exceed the emissions standards laid down by the Board from time to time for such type of industry/emissions.

(b) The Industry shall ensure that the emissions from each stack shall conform to the following emissions standards laid down by the Board in respect of the Industrial Boilers.

Steam Generating Capacity A	Required Particulate Matter	
Area up to 5 Km from the periphery of 1 and class II town		Other than "A" class
Less than 2 ton/hr.	800 mg/NM ³	1200 mg/NM ³
2 ton to 10 ton/hr	500 mg/NM ³	1000 mg/NM ³
Above 10 ton to 15 ton/hr	35 mg/NM ³	500 mg/NM ³
Above 15 ton/hr.	150 mg/NM ³	150 mg/NM ³

All emissions normalized to 12% carbon dioxide

17. The industry shall obtain the Authorization under the Hazardous Waste (Management Handling and Trans-boundary Movement) Rules, 2008, without any adverse effect on the environment in any manner.

18. The air pollution control equipment shall be kept at all time in good running condition and;

(i) All failures of control equipments

(ii) The emissions of any air pollutant into the atmosphere in excess of the standards lay down by the Board occurring or being

apprehended to occur due to accident or other unforeseen act or event. "Shall be intimated through fax to the Environmental Engineer, Regional Office as well as to the Director of Industries, Punjab Chandigarh as required under rule 10 of the Punjab State Board for the Prevention and Control of Air Pollution Rules, 1983".

19. The Industry shall plant minimum of three suitable varieties of trees all along with boundary of the industrial premises.
20. The Industry shall submit a site emergency plan approved by the Chief Inspector of Factories, Punjab as applicable.
21. The industry shall comply with the conditions imposed by the SEIAA/MOEF in the Environmental Clearance granted to it as required under EIA notification dated 14.09.2006, if applicable
22. The industry shall make necessary arrangements for the monitoring of stack emissions and shall monitor its emissions analyzed from all approved/authorised by the Board:
 - i. Once in Year for Small Scale Industries.
 - ii. Twice in a year for Large/Medium Scale Industries.
23. The industry shall maintain the following record to the satisfaction of the Board:
 - i. Log books for running of air pollution control devices or pumps / motors used for running of the same.
 - ii. Register showing the results of various tests conducted by the industry for monitoring of stack emissions and ambient air;
 - iii. Register showing the stock of absorbents and other chemicals to be used for scrubbers.

24. The industry will install the separate energy meter for running Pollution Control Devices and shall maintain record with respect to operating of air pollution control device so as to satisfy the Board regarding the regular operation of air pollution control device and monthly reading may be sent to the Board by the fifth of the following month.
25. The industry shall provide online monitoring system as applicable, for a stack emission and shall maintain the record of the same for inspection of the Board Office.
26. The board reserves the right to revoke the consent granted to the industry at any time in case the industry is found violating any of the conditions of the consent under air (Prevention & Control of Pollution) Act, 1981 as amended time to time.
27. The industry shall comply with any other conditions laid down or directions issued in due course by the Board under the provisions of the Air (Prevention & Control of Pollution) Act, 1981
28. Nothing in this consent shall be deemed to neither preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities or penalties to which the applicant is or may be subjected to under this or any other Act.
29. Any amendments/revisions made by the Board/CPCB/MOEF in the emission / stack height standards shall be applicable to the industry from the date of such amendments/revisions.
30. The industry shall dispose of its solid waste generated by the burning of fuel in an environmentally sound manner within his premises/outside as approved by the Board, to avoid public nuisance and air pollution problem in the areas.

31. The industry shall ensure that no air pollution problem or public nuisance is created in the areas due to the discharge of emissions from the industry.
32. The industry shall provide adequate arrangement for fighting the accidental leakage/discharge of any air pollutant/ gas liquids form the vessels, mechanical equipment's etc., which are likely to cause environmental pollution.
33. The industries shall not changes or alters the manufacturing process(as) and fuel so as to change the quality / quantity of emissions generated without the prior permission of the board.
34. The industry shall earmark a land within their premises for disposal of boiler ash in an environmentally sound manner, and / or the industries shall make necessary arrangements for proper disposal of fuel ash in a scientific manner and shall maintain properly record for the same, if applicable.
35. The industry shall obtain and submit insurance cover under the Public Liability Insurance Act, 1991.
36. The industry shall provide proper and adequate air pollution control arrangements for control emissions from its fuel handling area, if applicable.
37. The industry shall comply with the code of practice as notified by the Government / board for the type of industries where the sitting guidelines / code of practice have been notified.
38. The industry shall not cause any nuisance/traffic hazard in vicinity of the areas.

39. The industry shall ensure that the noise & air emission from D.G. sets do not exceed the standards prescribed for D.G. sets by the Ministry of Environment & Forests, New Delhi.
40. The industry shall ensure that there will not be significant visible dust emissions beyond the property line
41. The industry shall provide adequate and appropriate air polluting control devices to contain emissions from handling, transportation and processing of raw material and product of the industry.
42. The industry shall ensure that its production capacity does not exceed the capacity mentioned in the consent and shall not carry out any expansion without the prior permissions /NOC of the Board:

SPECIAL CONDITION.

The industry will operate its unit for 3 months for curtailed production capacity i.e. 337.5 TPD of writing and printing paper to assess the adequacy of treatment system after taking the remedial measures.

Sd/-

Sumita

Environmental Engineer for and on behalf of

(Punjab Pollution Control Board)

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IN THE SUPREME COURT OF INDIA

CIVIL APPELLATE JURISDICTION

CIVIL APPEAL NO. 5957 OF 2019

ANNEXURE R-28

IN THE MATTER OF:POSITION OF THE PARTIES

Before the	In this Hon'ble
Tribunal	Court

1. M/s Kuantum Papers Ltd.

Through
Mr. PavanKhaitan
(Managing Director)

W1A, First Floor,
Tower-A, Godrej Eternia,
Plot No. 70, Industrial Area
Phase-1, Chandigarh, 160002

Not a Party

Appellant

AND

1. State of Punjab

Through
Additional Secretary-Cum-Director Governance Reforms
D-241, Industrial Area,
Phase-8B, Sector - 74,
Mohali, Punjab.
dgr@punjab.gov.in

Respondent
No. 1Contesting
Respondent No. 1

3. Residents of SailaKhurd,
Raniala, District Moga,
Punjab, through
Sarpanch

Applicants

Contesting
Respondent No. 3

STATUTORY APPEAL UNDER SECTION 22 OF THE 'THE NATIONAL
GREEN TRIBUNAL ACT, 2010', ARISING OUT OF THE IMPUGNED
ORDER DATED 14.03.2019 PASSED BY THE LEARNED NATIONAL

GREEN TRIBUNAL, PRINCIPAL BENCH, NEW DELHI AND THE
PROCEEDINGS IN ORIGINAL APPLICATION NO. 850 OF 2018.

TO

THE HON'BLE CHIEF JUSTICE OF INDIA
AND HIS COMPANION JUDGES OF THIS
HON'BLE COURT

THE HUMBLE APPEAL OF THE
APPELLANT ABOVE NAMED

MOST RESPECTFULLY SHOWETH:

1. The Appellant preferring the present appeal under Section 22 of the 'The National Green Tribunal Act, 2010' against the order dated 14.03.2019, passed by the Learned National Green Tribunal, Principal Bench, New Delhi (hereinafter "NGT") as well as Joint Inspection Team Report dated 07.05.2019 in furtherance to the said Order in Original Application No. 850 of 2018, whereby the learned NGT directed that the Joint Committee (Punjab State Pollution Control Board and the Central Pollution Control Board) may assess the extent of damage caused in monetary terms on settled principles required the compensation to be deterrent and adequate to meet the cost of restoration. The Orders were passed without impleading or even granting any opportunity to the Appellant to present its case or provide any opportunity to the Appellant to raise the objections to the said letter which was treated as an Application bearing no. 850 of 2019. True copy of Joint Inspection Report dated 07.05.2019 is annexed herewith and marked as ANNEXURE- A-1 [Pages 56 to 67].

2. QUESTIONS OF LAW

The present appeal raises important and pertinent question of law having a far reaching consequences of law in the environmental jurisprudence particularly jurisdiction of National Green Tribunal:

- a. Whether the Ld. Tribunal (National Green Tribunal) which is created by a statute can exercise powers and jurisdiction beyond the provisions of the NGT Act and contrary to the statutorily prescribed procedure in terms of the National Green Tribunal (Practices & Procedure Rules), 2011. Whether the powers like *suo moto* and treating a generic letter as a petition contrary to the Act and the Rules, renders exercise of such power by the Ld. Tribunal ultra-virus its statutory and constitutional scheme.
- b. Whether the Ld. Tribunal erred in ignoring and disregarding the principles laid down by the Hon'ble Madras High Court in the case of *P. Sundaranjan v. The Deputy Registrar, High Court of Judicature at Madras, Writ Petition Nos. 35098 of 2013, 2528, 3440 & 3441 of 2014 & 2266 of 2015 & WP (MD) No. 2993 of 2014 Decided On, 07 July 2015*, where the High Court had taken note of the general grievances made in respect of the functioning of the Tribunal in exercising *suo moto* powers and had also noticed that the Ld. Tribunal would not act any further in view of the matter pending before the court in exercising *suo moto* powers.
- c. Whether the Ld. Tribunal can delegate its adjudicatory functions to the committee constituted by it in violation of well-established principle of law in the case of *Madras Bar Association v. Union*

of India and Anr. [(1992) 2 SCC 428] More so, where such delegation shall not only adjudicate the liability but would also effect prejudicially the statutory rights and protection granted to the Appellant under the environmental laws in force.

- d. Whether the Ld. Tribunal can pass Orders resulting in civil consequences to the Appellant in violation of the doctrine of *audi alteram partem* in view of the fact that the Appellant herein has neither been impleaded as a party to the proceedings nor any opportunity has been provided to the Appellant to be heard either by the Ld. Tribunal and/or the committee constituted by the Ld. Tribunal.
- e. Whether the Joint Inspection Report prepared and the samples collected and analyzed in violation to the statutory provisions of Sections 21 and 22 of the Water (Prevention and Control of Pollution) Act, 1974 and Sections 25 and 26 of the Air (Prevention and Control of Pollution) Act, 1981 can be relied upon and deemed to be treated as evidence admissible to pass adverse directions against the Appellant who has always been compliant with environmental laws and is a non-polluting industry.
- f. Whether the Ld. Tribunal erred and fell in error of law in not considering that the alleged violation was one time temporary violation occurring due to a variety of scientific reasons like calibration of online system, result of chemical dosing and reports anent planned cleansing and maintenance operation of the plant. More particularly, when the Appellant industry, in compliance to the environmental laws and its corporate social

responsibility, is providing irrigation to six villages where the development and economic growth has taken place as a result of such compliant activities of the Appellant.

- g. Whether in deprivation of statutory rights and remedies under the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and National Green Tribunal Act, 2010 and in clubbing all proceedings before various authorities, by its impugned Order, the Ld. Tribunal has fallen in error of law. The remedy of an Order under Section 33A is distinct from an Order refusing to grant consent to operate which is appealable before the Appellate Authority [under Section 28 of the Water (Prevention and Control of Pollution) Act, 1974]] and determining a question under Sections 14 and 15 of the National Green Tribunal Act, 2010 with regard to pollution and assessment of compensation is a matter that exclusively falls within the jurisdiction of the Ld. Tribunal and not the authorities. In the present case, seen in light of the above principles, and the principles enunciated by the Supreme Court in the case of *Tamil Nadu Pollution Control Board v. Sterlite Industries (I). Ltd &Ors.* [Civil Appeal Nos.4763-4764 OF 2013 decided on 18.02.2019], the Ld. Tribunal, on the one hand, has wiped out the statutory rights and remedies of the Appellant while on the other, has permitted leap-frogging of statutory remedies.
- h. Whether a trade effluent sample which is collected and analyzed contrary to the statutorily prescribed procedure and methodology can be made the basis for awarding of

compensation, more particularly, when the violations relate to provisions of the Act itself.

- i. Whether the expression 'any person aggrieved' appearing under the provision of the National Green Tribunal Act, 2010 seen in light of the statutory scheme of the Act and the Rules, would cover power of the Ld. Tribunal to entertain a generic letter written by a person not even resident of the area in question and who lives at a distant place from the industry. More particularly, when the letter is not signed by any of the residents of the seven villages in question. Whether the Ld. Tribunal has any jurisdiction to entertain and adjudicate on the basis of the said letter, when Ld. Tribunal lack inherent jurisdiction to do so?
- j. Whether the Ld. Tribunal erred in ignoring and disregarding the established principle of law down by this Hon'ble Court in the case of *Madras Bar Association v. Union of India and Anr.*, 25.09.2014 has unambiguously reiterated that exercise of judicial/adjudicatory functions given to the Ld. Tribunal under the statute cannot be delegated in any form whatsoever.

3. **BRIEF FACTS:**

The facts giving rise to filing of the present Appeal are narrated in the paragraphs appearing hereinafter.

- 3.1 That the Appellant is a company incorporated in India under the Companies Act, 1956 having its registered Office at Paper Mill Salla Khurd, 144 529, Distt. Hoshiarpur, Punjab and Head Office at W1A, First Floor, Tower A, Godrej Eternia, Plot No. 70, Industrial Area Phase.1, Chandigarh, 160002 and are

engaged in the business of manufacturing and trading of various kinds of papers. The present Appeal has been filed by Sh. Pavan Khaitan who is the Managing Director of the Appellant Company.

- 3.2 That the Appellant is into the business of paper manufacturing since 1980 and is having average production of 375 TPD, with conventional recovery plant for agro black liquor solids by way of a caustic soda recovery and a co-generation plant of 17.5 MW with Rick Huck, Coal & Bio-gas as fuel. For the purpose, the Company has received Consents to Operate/ Authorizations issued under the provisions of the Section 21 of the Air (Prevention & Control of pollution) Act, 1981 herein after referred to as "the Air Act" for Discharge of emissions, section 25 of Water (prevention & Control of pollution) Act, 1974 herein after referred to as "the Water Act" for discharge of effluents, Rule 5 of the Hazardous Wastes (Management, handling & Trans boundary Movement) Rules, 2016 and Bio-Medical Wastes Management rules, 2016. The said consents were duly renewed by the Punjab Pollution Control Board in June 2019 under the Water Act and the Air Act.

True Copy of consent to operate under Water Act dated 29.08.2014 along with typed copy is annexed herewith and marked as ANNEXURE- A-2 [Pages 68 to 81]. True Copy of the consent to operate under Air Act dated 29.08.2014 along with typed copy is annexed herewith and marked as ANNEXURE- A-3 [Pages 82 to 98]. True Copy of the Authorization under biomedical waste management rules, 2016 dated 21.06.2018 along with typed copy is annexed herewith

and marked as ANNEXURE- A-4[Pages 99 to 116].

True Copy of the consent to establish (NOC) for modernization of an industry dated 23.07.2018 along with typed copy is annexed herewith and marked as ANNEXURE- A-5[Pages

117 to 142]. True Copy of the approval for irrigation management plan by department of soil and water conservative, Punjab dated 10.04.2019 along with typed copy is

annexed herewith and marked as ANNEXURE- A-6[Pages

143 to 145]. True Copy of the renewal of authorization under Hazardous and other wastes (management and transboundary movement) rules, 2016 dated 12.04.2019 along with typed copy is annexed herewith and marked as

ANNEXURE- A-7[Pages 146 to 152]. True Copy of the

renewal of consent under Water Act dated 04.06.2019 along with typed copy is annexed herewith and marked as

ANNEXURE- A-8[Pages 153 to 165]. True Copy of the

renewal of consent to operate under Air Act dated 04.06.2019 along with typed copy is annexed herewith and marked as

ANNEXURE- A-9[Pages 166 to 186]. True Copy of the

Rainbow Agreement dated 18.05.2016 along with typed copy

is annexed herewith and marked as ANNEXURE- A-10[Pages

187 to 193].

- 3.3 At the outset, it is submitted that the Appellant is in compliance with the terms and conditions as set out in the various consents to Operate / Authorization which were issued by the Punjab Pollution Control Board (herein after referred to as "PPCB"). The treated waste water discharge from the plant is well within the limits, permitted under the Consents to operate /

Authorization issued by the PPCB to the Appellant and is utilized for irrigation purposes. The Company has on a periodic basis got samples tested to ensure compliance with the standards set under the Air Act for discharge of emissions; and the Water Act for discharge of effluents and the respective Consent to Operate / Authorization issued thereunder. The Appellant has also installed an Online Continuous Effluent Monitoring System ("OCEMS"), which has been calibrated as per the standards set out by the Central Pollution Control Board herein after referred to as "CPCB" and/or PPCB, collectively herein after referred to as "Pollution Control Boards" and is providing real-time data to the Pollution Control Boards regarding the effluent discharge from the plant at Saila Khurd.

4. That on 27.05.2018 the PPCB visited the plant of the Appellant and took samples from inside the plant i.e. from the ETP and from the pipes leading from the outlet of the ETP for irrigation in the field. According to the test reports of the aforesaid samples it was observed that the parameters of the sample collected from the ETP are within the limits, however the sample collected from the end of the pipes leading to the field is beyond the limit i.e. BOD = 34 mg/ltrs.

That thereafter PPCB issued a Notice bearing no. 5557 dated 06.09.2018 to the Appellant under Section 33-A of Water (Prevention & Control of Pollution) Act, 1974, whereby the aforesaid discrepancy was raised along with raising the issue of having received the higher values according to the CPCB SMS alert for the ETP. The date of personal hearing for the said notice was fixed for 18.09.2018.

True Copy of Letter/ Notice dated 06.09.2018 under Section 33A of Water Act along with typed copy is annexed herewith and marked as ANNEXURE- A-11[Pages 194 to 200].

5. In response to the said Notice (5557), the Appellant duly replied on 14.09.2018 wherein the Appellant replied to all the issues raised by the PPCB. It was submitted that the higher values of BOD was due to the technical fault in the Online Effluent Monitoring System at Appellant's end and the same was corrected within minutes. And further it was submitted that with respect to the values of the samples that were taken from the fields of Sh. Satnam Singh, the higher values of BOD as 34 mg/lts was due to some contamination from field as the same treated effluent having BOD level of 26 mg/lts. is leading to the pipes of irrigation network. Furthermore the said values are within 20% tolerance limit which was duly accepted by PPCB in the hearing held on 05.02.2019. True Copy of the Reply dated 14.09.2018 to the Chairman, PPCB along with typed copy is annexed herewith and marked as ANNEXURE-A-12[Pages 201 to 204].

6. The online system could reflect varied or even higher value for a split moment for variety of reasons which would automatically be remedied once there is proper flow of the Trade Effluent. True Copy of the proceedings of personal hearing on 18.09.2018 dated 26.09.2018 along with typed copy is annexed herewith and marked as ANNEXURE- A-13[Pages 205 to 212]. True Copy of the proceedings of personal hearing on 18.09.2018 dated 09.10.2018 along with typed copy is annexed

7. That on 18.09.2018, the personal hearing took place before the PPCB and in the said hearing it was directed that a team of PPCB shall visit the plant of the Appellant and shall take samples and prepare a report.

It is submitted that while the aforesaid parallel proceedings were pending a letter was received by the Ld. NGT which was later converted into the Application against which the Appellant prefers the present Appeal. Furthermore the said matter was listed before the Ld. NGT on 19.12.2018 whereby the Ld. NGT directed the joint committee of CPCB and PPCB to furnish a report on the factual aspect of the matter and action taken, if any. It is important to mention here that next date of hearing of the said matter was fixed for 13.03.2019

True Copy of the Order Sheet dated 19.12.2018 of Ld. NGT in OA No. 850/2018 along with typed copy is annexed herewith and marked as ANNEXURE- A-15 [Pages 216 to 219].

8. That thereafter during the personal hearing held on 05.02.2019 before the PPCB and the Appellant filed its reply on 06.02.2019, highlighting the various points showing compliance of the Petitioner in all respects anent the environmental laws and regime and the factum of incorrect values noticed by the Board.

True Copy of Notice under Section 33A of Water Act dated 01.02.2019 along with typed copy is annexed herewith and marked as ANNEXURE- A-16 [Pages 220 to 232]. True

Copy of Proceedings of Personal Hearing on 05.02.2019 dated 22.02.2019 along with typed copy is annexed herewith and marked as ANNEXURE- A-17[Pages 233 to 249]. True Copy of Letter submitted by the Appellant dated 06.02.2019 along with typed copy is annexed herewith and marked as ANNEXURE- A-18[Pages 250 to 260]. True Copy of Letter dated 01.03.2019 issued by Regional Office, PPCB along with typed copy is annexed herewith and marked as ANNEXURE- A-19[Pages 261 to 264].

9. That thereafter vide letter dated 07.03.2019 the Appellant made representation before the PPCB with respect to the steps taken by them. The said representation is iterated herein below:

9.1 . That despite being in compliance with the environment norms and parameters set out in the Consents to Operate / Authorization, the Appellant, in an efforts to further bring down its environment impact, has continuously been taking various measures. These measures will show that the Appellant was and is in compliance with the environment practices to ensure sustainable development, without causing damage to the environment at large.

9.2 That the Appellant requires water for the purposes of manufacturing paper and water is required for preparation of the raw materials, for cooking / pulping of raw material, for pulp washing, pulp bleaching and finally for manufacturing paper sheets. The Appellant gets its

water from the operational tube-wells installed at its premises at Saila Khurd. The total water requirement of the Company is 21000 m³ per day, which comes to 50 m³ per ton of paper and is well within the norms prescribed by the CPCB. The total quantity of the treated effluent discharge is about 17000 m³ per day.

9.3 From its various manufacturing process explained above, the Appellant has four streams of effluents which are:-

- (i) Washing of Raw material;
- (ii) Pulping section ;
- (iii) Machine Section;
- (iv) Recovery Boiler

9.4 The waste water / effluent from the washing of the Raw Material is treated in the ETP as under:-

- a. The waste water or effluent from washing of raw material is sent to a bio-clarifier having capacity of 1105m³ with 16m diameter with depth 5.5m.
- b. This is followed by anaerobic treatment system i.e. up flow anaerobic sludge blanket reactor ("UASBR") having capacity of 3928.6m³ with 25m diameter and 8m depth. The said UASBR is adequate to treat 8000m³ per day of effluent, whereas the present discharge from bio-clarifier is 4000m³ per day. With the operation of the UASBR approximately 2000m³ per day of bio-gas is generated which is used as fuel in the boiler. The treatment efficiency of UASBR in terms of removal of COD and BOD is 59% and 83%, respectively.

c. The Anaerobic biological treated effluent is imparted aerobic biological treatment through aeration tank no. 3 called as ASP-3. It has capacity of 4010m³, where the flow rate of effluent is maintained as 4000m³ per day with hydraulic retention time of 24hrs. The biomass (MLSS) is maintained in the range of 4000-5000 mg/l and Do in the range of 1.5-2 mg/l. the sludge volume index is 90-130 ml/g. An adequate dose of DAP and urea is given as nutrient to the biomass. The mixed liquor is further carried into secondary clarifier for separation of biomass and clear treated effluent. The treatment efficiency of aeration tank in terms of removal of BOD, COD and TSS has been observed as 91%, 73% and 68%, respectively.

9.5 For the treatment of the remaining three streams of waste water / effluent, the following process is being followed by the Company:-

a. PRIMARY CLARIFIER

For the removal of TSS, COD and BOD, a primary clarifier of capacity 5100 m³ with diameter of 38m and depth of 4.5m, has been installed. The hydraulic retention time of primary clarifier is 9.4 hrs with overflow rate of 11.5 m³/ m²/ day. The treatment efficiency in terms of removal of TSS, COD and BOD is 90%, 50% and 50%, respectively.

b. AERATION TANK NO.1

It has capacity of 6670 m³, where the flow rate of effluent is maintained as 9000 m³ per day with

hydraulic retention time of 17.8 hrs. The biomass ("MLSS") is maintained in the range of 4000-5000 mg/l and DO in the range of 1.5-2 MG/L and the sludge volume index nutrient to the biomass. The mixed liquor is further carried into secondary clarifier for separation of biomass and clear treated effluent. The treatment efficiency of aeration tank no.1 in terms of removal of BOD, COD and TSS has been observed as 90%, 72% and 66% respectively.

c. AERATION TANK NO.2

It has capacity of 4050m³, where the flow rate of effluent is maintained as 4000m³ per day with hydraulic retention time of 24hrs. The MLSS is maintained in the range of 4000-5000mg/l, DO in the range of 1.5-2 mg/l and the sludge volume Index is 90-130 ml/g. An adequate dose of DAP and urea is given as nutrient to the biomass. The mixed liquor is further carried into secondary clarifier for separation of biomass and clear treated effluent. The treatment efficiency of aeration tank no.2 in terms of removal of BOD, COD and TSS has been observed as 94%, 77% and 72%, respectively.

d. SECONDARY CLARIFIER

For the separation of biomass and treated liquid effluent, a secondary clarifier of capacity 5100m³ having adequate HRT and overflow rate has been provided secondary clarifier is adequate to clarify the mixed liquor entering into it from aeration tanks.

e. TERTIARY CLARIFIER

For further treatment of the effluent a dose of poly-Aluminium Chloride ("PAC") is added which further reduces the values of BOD, COD and TSS and the various parameters namely PH, BOD, COD and TSS remain within the permissible limits of 6.5-8.5, 30mg/l 250mg/l and 50 mg/l respectively.

WASTE-WATER / EFFLUENT RESULTS

9.6 It is pertinent to mention here that the Company is monitoring the performance of ETP and is having the samples taken from the ETP tested from M/s Environtech laboratories, Mohali which is an NABL accredited lab and recognized by the PPCB and all reports therefrom found Trade Effluent compliant of prescribed parameters.

9.7 That besides the technical team of M/s. Sophisticated Analytical instrument laboratories Society, (SAI Lab) Thapar Technology Campus, Patiala had also collected the sample from (a) ETP Outlet and (b) irrigation point outlet (Village Nariala), on 07.01.2019.

GROUND WATER / DRINKING WATER QUALITY RESULTS

9.8 The Appellant has also got quality of the drinking water analysed from M/s. Envirotech Laboratory, Mohali, a NABL accredited laboratory on 03.08.2017. As per the report, the values of the Parameters in the ground water have been observed as PH-7.26-7.47, TDS-160-404 mg/l, alkalinity-130 mg/l, chloride-27mg/l, calcium-19-72

mg/l, magnesium- 9.0-25.0 mg/l, and total hardness 86 mg/l which are within the permissible limits of 6.5- 8.5, 500 mg/l, 200mg/l, 250mg/l, 30 mg/l and 200 mg/l respectively. Pertinently, the values of heavy metals either are within the permissible limits or not detectable in these ground water samples. Besides no bacterial contamination or pesticides residues have been found in these drinking water samples.

- 9.9 That on 30.07.2018, the Appellant got the quality of the drinking water in villages SailaKhurd, Hilra, SailaKalan, Majradingrian and Nariala analysed from Punjab Biotechnology incubator, Mohali. As per the report, the values of the parameters in the ground water have been observed as pH= 7.28-7.59, TDS= 341-417 mg/l, chloride= 06-190 mg/l, calcium =28-117 mg/l, magnesium = 25-31.4 mg/l which are within the permissible limits of 6.5-8.5, 500 mg/l, 250 mg/l, 75 mg/l, 30 mg/l, respectively.

SOIL ANALYSIS RESULTS

- 9.10 That in addition to the testing of the effluent & water samples, the Appellant also gets the quality of soil analysed from the Department of soil Science, Hoshiarpur (KrishiVigyan Kendra) twice a year. The latest testing was conducted in June, 2018 results of which are as under:-

Sr.No.	Point of sample Collecti	Parameters				
		Ph	Salt (millimhos/c	Organic	Available phosphor	Availab le

	on		m)	Carbo n	os	
1.	Various Villages	7.2 - 8.0	0.25-0.35	0.18- 0.73%	5.2-8.6 kg/Acre	
	Permissible Limits	6.5 - 8.7	0.80	0.4- 0.75%	More than 5.0- 9.03 kg/Acre	

Thus, even the soil testing report clearly establishes that the Appellant is in compliance with the prescribed norms.

SHORT- TERM & LONG-TERM MEASURES

9.11 That even though the Appellant is strictly in compliance with all the applicable environmental parameters, the Appellant is committed to further reduce its footprint on the environment and in order to ensure the same, the Appellant has planned various Short-term and Long-term measures, aimed at improving the values of the effluent / emissions discharged from the Appellant's plant, which are already within the permissible limits.

9.12 The Appellant has executed / planned the following short term measures that will improved the effluent / emission value.

- a. The Appellant had requested for a technical audit of the Effluent Treatment Plant (ETP) from central pulp & paper Research institute (CPPRI), Saharanpur and as per the recommendations of CPPRI, the Appellant has started the construction work of the Equalisation Tank before the primary clarifier.

- b. The Appellant had requested for a technical audit of the Chemical Recovery Plant (CRP) from central Pulp & Paper Research institute (CPPR), Saharanpur and the entire system were found to be perfectly in order as per the standards.
- c. The Appellant has re-calibrated, its Online Continuous Effluent Monitoring Systems ('OCEMS'), which is connected to the CPCB/PPCB Server and sends them real-time updates on the various effluent parameters.
- d. The Appellant has re-calibrated its Online Stack Emission Monitoring System, Which is connected to the CPCB/PPCB Server and send them real-time updates on the air quality.
- e. The Appellant had applied for approval and has been approved of its Irrigation Management Plan with the State Government (Department of Soil Conservation) which has been approved.
- f. The Appellant had initiated the process of study of the ground water of the whole command area where the treated effluent is utilized onto land for irrigation purposes from Sh. Daljit Singh Saini, Former Superintendent - Hydrogeology (CGWB) Ministry of Water Resources (Govt. of India), Chandigarh who is an expert in the field of Hydrogeology. The study report clearly demonstrates that there are no violations of the prescribed parameters and the ground water quality is found to be compliant.
- g. The Appellant has also prepared a complete Ash Management Plan.

- h. The SOP for operation of ETP & CRP has been prepared and record of operations of ETP is being maintained on a daily basis, the said functioning has now even been further improved to meet even higher/more stringent parameters.
- i. The Appellant has already applied for permission/NOC from CGWA regarding abstraction of fresh water from existing tube wells. Reminders have also been issued to the said department and at present the Application is under process as updated by the department.
- j. Regarding the installation of Electrostatic Flow Meters at the inlet of the ETP, the Appellant has already requested for quotations from the concerned vendors. The same shall be installed after finalizing the vendor.
- k. The Appellant had planned to commission Chlorine Dioxide (CLO₂) bleaching plant by March, 2019 which will result in reduction in the value of Absorbable Organic Halides ("AOX"). This plant has already become operational along with the grant of consent to operate by the Punjab Pollution Control Board, as per the directions of the Board.

9.13 That in addition to above, the Appellant has planned the following Long-term measures that will improve the values of the effluent / emission generated by the Appellant:-

- a. The Appellant plans to commence Elemental Chlorine Free (ECF) bleaching, which is an environment friendly process for entire pulping by 31 March, 2019.

This process will result in elemental chlorine free bleaching and value of AOX shall be reduced to almost negligible and quality of water effluent shall be greatly improved and for same the Appellant had invested a huge cost of Rs. 50 Crores.

b. The Appellant plans to commission a new Chemical (Soda) Recovery plant by 31 March, 2020 that will enable the Appellant to close its existing Fluidized bed reactor, resulting in further reduction of stack emission values and improvement in the quality of the environment. The said plant is costing Rs. 220 Crores to the Appellant.

9.14 That the aforementioned measures which the Appellant has taken, will further improve the reading of the various parameters, although the readings are already well within the permissible limits. The Appellant is taking these steps to discharge its social obligation towards the environment at large and to the people living in the surrounding villages. The Appellant is committed to the protection of the environment and by regularly having its effluents/emissions tested, ensures that the discharge values remain within the permissible limits as prescribed by the regulatory bodies.

True Copy of Reply/ Submissions by the Appellant to the Chief Environmental Engineer dated 07.03.2019 along with typed copy is annexed herewith and marked as ANNEXURE- A-20[Pages 265 to 290]. True Copy of Notice under Section 33A of Water Act dated 25.03.2019 along with typed copy is annexed herewith

and marked as ANNEXURE- A-21[Pages 291 to 301]. True Copy of Proceedings of Personal hearing on 09.04.2019 dated 15.04.2019 along with typed copy is annexed herewith and marked as ANNEXURE- A-22[Pages 302 to 317]. True Copy of proceedings of Personal Hearing on 24.04.2019 dated 25.04.2019 along with typed copy is annexed herewith and marked as ANNEXURE- A-23[Pages 318 to 348]. True copy of Letter dated 25.04.2019 along with typed copy is annexed herewith and marked as ANNEXURE- A-24[Pages 349 to 362]. True Copy of Reply to the Notice under Section 33A of Water Act dated 08.04.2019 along with typed copy is annexed herewith and marked as ANNEXURE- A-25[Pages 363 to 373]. True Copy of Letter dated 23.04.2019 by the Appellant to Senior Environmental Engineer along with typed copy is annexed herewith and marked as ANNEXURE- A-26[Pages 374 to 382].

10. That thereafter, while the proceedings were pending before the PPCB, the Ld. NGT passed the Impugned Order whereby the Ld. NGT directed the Joint Committee of CPCB and PPCB to assess the damage caused in monetary terms on the settled principles requiring the compensation to be determined and adequate to meet the cost of restoration without even considering the fact the Appellant has not been given any opportunity to represent its self as no notice was ever served upon the Appellant to appear before the Ld. Tribunal to clarify. Furthermore the Ld. Tribunal failed to adhere to the principle of

natural justice and did not even direct the PPCB to furnish the submissions filed by the Appellant before them while passing the said Impugned Order.

11. That thereafter the joint report dated 07.05.2019 of PPCB and CPCB was filed before the Ld. NGT wherein the compensation has been calculated to an extent of Rs. 282.60 Lakhs. It is further submitted in this regard that in the said report the Joint Committee totally ignored the submissions filed by the Appellant to all the notices or letters that were served upon the Appellant wherein the Appellant has categorically submitted the reasons for the higher values of BOD and COD and have further pointed out the discrepancies in the entire process. It is pertinent to mention here that the Appellant have requested several times for supplying the said report, however all the efforts went in vein. True Copy of Request letter to supply joint report dated 20.05.2019 along with typed copy is annexed herewith and marked as ANNEXURE – A-27 [Pages 383 to 384]. True Copy of the Joint Committee Report dated dated NIL along with typed copy is annexed herewith and marked as ANNEXURE – A-28 [Pages 385 to 404]. True Copy of test reports issued by the Punjab Pollution Control Board along with typed copy is annexed herewith and marked as ANNEXURE – A-29 [Pages 405 to 464].

The Appellant is placing of record a true copy of the Water sampling and preservation techniques dated NIL along with typed copy is annexed herewith and marked as ANNEXURE – A-30 [Pages 465 to 513]. True Copy of Environmental

Audit Report for the Year 2017-2018 dated 16.05.2018 along with typed copy is annexed herewith and marked as ANNEXUE- A-31[Pages 514 to 524]. True Copy of Environmental Audit Report for the Year 2018-2019 dated 25.04.2019 along with typed copy is annexed herewith and marked as ANNEXUE- A-32[Pages 525 to 535].

True Copy of Map of Factory / Plant, ETP and land on which water is supplied for irrigation is annexed herewith and marked as ANNEXURE – A- 33[Pages 536 to 537]. True copy of Gram Panchayat Resolutions of various Villages along with translated copy is annexed herewith and marked as ANNEXURE – A- 34[Pages 538 to 549]. True Copy of Socio- economic impact assessment dated NIL along with typed copy is annexed herewith and marked as ANNEXURE – A-35[Pages 550 to 580].

True Copy of the Report of impact on ground water quality dated NIL along with typed copy is annexed herewith and marked as ANNEXURE – A-36[Pages 581 to 612].

12. SUBMISSIONS AND GROUNDS FOR CHALLENGE:-

It is submitted that the Appellant is constrained to file the present Appeal, since the Impugned Order is unlawful, arbitrary and is liable to be set aside on following amongst other grounds, taken without prejudice to one another:

GROUNDS

The collection of the Trade Effluent Sample and its analysis is contrary to law and in admissible in evidence and could not form valid basis of any report or Order in accordance with law, amongst others for the following reasons/grounds:

A. BECAUSE it is a settled principle of law that the Ld. Tribunal, which is a creation of a statute, has to exercise its jurisdiction strictly within the framework and limitations of the provisions of that statute. This principle is applicable with equal force to the substantive provisions of the act as well as the procedural rules enacted under the statute itself. It will not be permissible for the Ld. Tribunal to travel beyond the ambit and scope of the provisions of the statute which created it, in regard to either substantive law or the procedural law.

Exercise of such powers beyond the limits of the prescribed provisions tantamount to acting without jurisdiction.

The Supreme Court in the Case of *Tamil Nadu Pollution Control Board v. Sterlite* [Civil Appeal No. 1582 of 2019] stated that: "it is clear that Section 16 of the NGT Act is cast in terms that are similar to Section 14(b) of the Telecom Regulatory Authority of India Act, 1997, in that appeals are against the orders, decisions, directions, or determinations made under the various Acts mentioned in Section 16. It is clear, therefore, that under the NGT Act, the Tribunal exercising appellate jurisdiction cannot strike down rules or regulations made under this Act. Therefore it would be fallacious to state that the Tribunal has powers of judicial review akin to that of a High Court exercising constitutional powers under Article 226 of the Constitution of India. We must never forget the distinction between a superior court of record and courts of limited jurisdiction that was, in the felicitous language of Gajendragadkar, C.J., in *Re: Special Reference (1965)* 1 SCR 413, made in the following words: We ought to make it clear that we are dealing with the question of jurisdiction and are not concerned with the propriety or reasonableness of the exercise of such jurisdiction. Beside, in the case of a superior Court of record, it is for the court to consider whether any matter falls within its jurisdiction or not. 'prima facie', says Halsbury, "no matter is deemed to be beyond the jurisdiction of a superior court unless it is expressly shown to be so, while nothing is within the jurisdiction of an inferior court unless it is expressly shown to be so, while nothing is within the jurisdiction of an inferior court unless it is expressly shown on the face of the proceedings that the particular matter is within the cognizance of particular court [Halsbury's Law of England, vol. 9 p. 349] at para 499. We are of the view that the NGT has no general power of judicial review akin to that vested under Article 226 of the Constitution of India possessed by the High Courts of this country."

The power of judicial review as examined and decided under Supreme Court in Case of *L. Chandra Kumar v. Union of India* [(1997)3 SCC 261]: "Power of judicial review over legislative action vested in the High Courts and the Supreme Court under Articles 226 and 32 respectively is the basic structure of the Constitution.

Power of judicial superintendence over decisions of all courts and Tribunals within their jurisdiction is the basic structure of the Constitution.

Judicial review of legislative action in exercise of power by subordinate judiciary or Tribunals created under ordinary legislation cannot be to the exclusion of the High Courts and the Supreme Court. However they can perform supplemental – as opposed to substitutional – role in this respect.

Tribunals constituted under Articles 323A and 323B have the power to test vires of subordinate legislation except vires of their parent statutes. All its decisions would be subject to scrutiny before Division Bench of their respective High Courts under Articles 226/227. No appeal would lie directly to the Supreme Court under Article 136. The said direction would operative prospectively."

Furthermore, the Ld. Tribunal of Westren Zone Bench, Pune in its Order for *Dileep B. Nevatia v. Union of India*; Application of 27/2015 stated that: "It is trite law that the jurisdiction of the Tribunal, being a creature of statute, is subject to limitations imposed upon this tribunal under the provisions of the statute by which it has been created. [*Mohammed Hasnuddin v. State of Maharashtra* (1979) 2SCC 572]

- B. BECAUSE the Ld. Tribunal in entertaining a letter as a petition under the National Green Tribunal (Practices and Procedure) Rules, 2011, and setting in motion the procedure of adjudication *suo moto* or treating a letter as a petition traversed its statutorily mandated jurisdiction. Every application before the Ld. Tribunal has to be signed, verified and supported by an Affidavit and it is to be in the format statutorily prescribed under the National Green Tribunal (Practices and Procedure) Rules, 2011. Non-Compliance of this prescribed procedure which is mandatory in its character, would not be proper exercise of jurisdiction.

Reference: [*P. Sundaranjan v. The Deputy Registrar, High Court of Judicature at Madras*, Writ Petition Nos. 35098 of

Firstly, exercise of jurisdiction contrary to statutorily prescribed procedure leads to defeating the purpose and intent of the Rules, and secondly, it also frustrates the intent of law to hold the Appellant, responsible for the consequences based on incorrect or unreliable allegations.

- C. BECAUSE the Orders passed by the Ld. Tribunal and the report prepared by the committee are in violation of the statutorily prescribed procedure, as well as principles of natural justice and the procedure adopted is entirely unknown to the basic rule of law, stated under Section 19 of the National Green Tribunals Act, 2010. By the impugned Orders, the Ld. Tribunal has constituted a committee to which it has, for all intents and purposes delegated its adjudicatory functions in violation of the provisions of the Act.

The committee constituted was not a fact finding committee and it has practically performed all the statutory functions which have to be exercised by the Ld. Tribunal itself in terms of Sections 14, 15 and 16 of the National Green Tribunal Act, 2010

- D. BECAUSE the impugned report and Orders are violative of the doctrine of *audi alteram partem*, non-compliance of the prescribed procedure as enumerated under Section 18(3) and Section 19(1) of the National Green Tribunal Act, 2010, and is opposed to the settled cannons of environmental jurisprudence

which are inter alia, but primarily submitted without prejudice to the above as follows:

- i. Even when the Ld. Tribunal treated the letter in as a petition still it chose not to issue any notice to the present Appellant, contrary to the provisions of Rule 15(3), Rule 15(5) of "service of notice and process" and Rule 8, 12, 13 and 15 of the Nation Green Tribunal (Practise and Procedure) Rules 2011.
- ii. All the Orders for inspection, fixation of compensation and for issuance of directions by the committee and the court have been issued without impleading or issuing notice to the present Appellant.
- iii. The Joint Inspection Team and even the officers of the Board failed to comply with the statutory requirements contemplated under Sections 21 and 22 of the Water (Prevention and Control of Pollution) Act, 1974, and Sections 25 and 26 of the Air (Prevention and Control of Pollution) Act, 1981. Any evidence collected or inspection conducted in violation to the statutory provisions and the procedure prescribed shall be inadmissible and cannot form the basis of either issuance of any directions or computation of compensation in accordance with law.
- iv. The Appellant, on the one hand, has not been impleaded as a party Respondent to the petition before the Ld. Tribunal while, on the other hand, all the proceedings are being under taken by the Ld. Tribunal, Board and the Joint Inspection Team including punitive and proceedings of civil consequences, without notice.

- v. Till date the Appellant has not been provided, by the concerned authorities, Joint Inspection Team and even the Ld. Tribunal, copy of the inspection reports so as to enable the Appellant to put forward its case and respond to the allegations made or inquiry conducted against the Appellant. The entire proceedings are vitiated for violation of principles of natural justice.
- vi. It is a settled cannon of law that proceedings taken or inquiries conducted in violation of the principles of natural justice are non est in the eyes of law.
- vii. The inspections and directions lack adequate reasoning in consonance with law, which for exercise of such jurisdiction is a sine qua non. The Hon'ble court while computing the significance of *ratio decidendi* has stated in the case of *Marta Silva v. Diedade Cardozo*, AIR 1969 Goa 94 at 1001, 101.[CPC ?(5 OF 1908)Preamble] : "*Ratio decidendi is the opinion given by the judge and such opinion should by its formation is necessary for the decision of a particular case*"
- Also in the Case of *Industrial Credit & investment Corporation of India Ltd.v. Dhanesh D. Rupareilia*(2000) 99 Comp Cas 181, 185(Bom) the Hon'ble High Court highlighted that : "*to be the ratio decidendi amongst the others the minimum requirement is that the matter has to be decided by giving reasons.*"
- viii. Fair opportunity of presenting its case has been denied to the Appellant by Joint Inspection Team, Board and even the Ld. Tribunal. At no stage was the Appellant given a copy of the complaint, inspection reports and even other ancillary documents or called upon to show cause or put forward its

case for consideration before the forum. In other words, the obligations, liabilities and imposition qua the Appellant are being adjudicated in violation of principles of natural justice and the statutory procedure and it has completely jeopardized the rights of the Appellant. The same is also in violation of dictum of this Hon'ble Court in the case of Nawabkhan Abbaskhan v. State of Gujarat, [AIR 1974 SC 1471, 1480.], where it was held that:

"It is obligatory on the part of the tribunal to hear, expressly or by implication by giving an opportunity to be heard as a natural justice otherwise, the impugned act or order was never valid" as stated in

- ix. Not only in violation to the Principles of Natural Justice but in complete derogation to the procedure prescribed by law, the Board and the Joint Inspection Team neither served any notice for inspection, nor furnished copies of the inspection report or analysis report so as to enable the Appellant to know the contents thereof.
- x. The Ld. Tribunal did not direct notice as well as copies of various Orders be served under which prejudicial directions and/or civil consequences were passed against the Appellant. The entire proceedings have been undertaken in absence of the Appellant.
- xi. The Appellant had even written to the Board and the Joint Inspection Team to provide the Inspection and Analysis reports which are being relied upon by the Board. However, despite such specific request, copies thereof have not been supplied to the Appellant.
- xii. Compelled by various adverse information and threatened by prospective action by the authorities which the Appellant

learned from different sources, it conducted inspection of the file before the Ld. Tribunal on 30.05.2109, and then came to know of the contents of the report including fixation of compensation by the Joint Inspection Team.

- E. BECAUSE the inspection report and collection of sample of effluent are contrary to and in violation of the statutory provisions of Section 25 and 26 of the Air (Prevention and Control of Pollution) Act, 1981 and Section 21 and 22 of the Water (Prevention and Control of Pollution) Act, 1974 as above stated. Neither have the samples been collected as per the prescribed procedure, nor have they been collected from the proper points of discharge. For these violations the reports cannot form the basis of any punitive action. The Effluent Treatment Plant and other processes of the Appellant industry were found to be in order and therefore, the question of violating norms or causing pollution would not arise.
- F. BECAUSE even if the reports are taken on their face value, at best it would show point based value or a minor violation of the prescribed value which may be just the one time or for a limited duration of time following which it is immediately corrected and quality of the effluent is brought within the prescribed norms. Thus, there is not any continuous violation caused by the Appellant and therefore, no continuous pollution. The report, in so far as the Joint final Inspection Report assessed compensation on continuous basis, is ex-facie, erroneous and contrary to the record.

G. BECAUSE the environmental compensation cannot be imposed in terms of Section 15 of the National Green Tribunal Act, 2010 on a presumptive basis. Contribution of pollution, cause of pollution and actual pollution that to continuously has to be established as a fact before compensation can be determined. In any case, a committee cannot be vested with the power of determining environmental compensation and determining the liability, which is an adjudicatory function in violation of Principles of Natural Justice. Various inspections carried out by the Board from time to time have shown that the unit of the Appellant was performing within prescribed limits in all respects and has not been violative. Right from its inception, the Appellant's unit was always operated in accordance with the terms and conditions of the consent granted by the Board. The consent from the Board has again been granted in June 2019, for a period of one year. This in itself shows that the Appellant's industry is a non-polluting unit.

The online monitoring system of the Appellant is directly connected to the server of the Central Board, and it clearly establishes continuous discharge of trade effluent being compliant with the prescribed parameters. Compliance to the standard value has also been established from the analysis reports that were submitted to the Board by the Appellant from the accredited-laboratories run by the state. Therefore, there could not be computation on the basis of presumptive pollution for the period 27.05.2018 to 17.01.2019.

H. BECAUSE it is vital for any inspecting authority to examine if the variation in values of the effluent compared to the prescribed standard values was instantaneous or short term variation or had persisted over a reasonable time. All these aspects can be scientifically rationalized and proved. Some of the reasonable causes providing due indication in regard to the above could be calibration of online system, result of chemical dosing and even inspection during the period when planned cleansing and maintenance operation of the plant is undertaken. During these periods there would be variation in values. This actually was the case in the case of the Appellant Unit when the inspection was carried out during the calibration of the online system under the directions of the Board.

I. BECAUSE the various samples collected by the inspecting authorities from different places clearly demonstrated that the violative parameters were noticed in the groundwater upstream to the plant of the Appellant. No pollutants beyond the prescribed values were found downstream to the plant. This would evidently show that no pollution was being caused by the working of the plant of the Appellant. It is specifically noticed in the reports that the groundwater samples are within norms for all the locations except Rampur village which is located up stream.

J. BECAUSE it is nobody's case and in fact, no reports show that there was continuous pollution from 15.11.2018 till the day of the submission of the report. The finding of continuous pollution and consequent awarding of compensation is entirely without

any basis and in fact, is opposed to the record in that behalf. The fields of Manjeet Singh, are located 5 kms away from the plant of the Appellant. The other complainant is a resident of the commercial town of Nawanshahr, Punjab which is located more than 20 kms away from the plant of the Appellant.

- K. BECAUSE the Ld. Tribunal failed to appreciate that in the report dated 17.01.2019 the joint committee did not make any reference to the earlier two visits dated 23.05.2018 and 15.11.2018 by the PPCB and the recommendations provided by the PPCB in the parallel proceedings that were going on before the said Board.
- L. BECAUSE the Ld. Tribunal failed to appreciate that the procedure to be followed for obtaining the samples was not followed. It is submitted in this regard that no counter sample was provided to the Appellant for its testing which the Appellant could have conducted from independent of the authorities.
- M. BECAUSE the Ld. Tribunal failed to appreciate that in the Joint Report filed by the PPCB and CPCB in accordance with the Order dated 19.12.2018, the Boards miserably failed to mention the parallel proceedings that were taking place before the PPCB or that the Appellant had filed various compliance reports and made several representations.
- N. BECAUSE the Ld. Tribunal has assumed to itself the powers exercisable by the superior courts in the country under Articles 32 and 226 of the Constitution of India and has exceeded its statutory powers while acting contrary to the provisions of the

statute. The statutory powers of the Ld. Tribunal cannot by any known principles of law, be equated to the powers of the Writ Court. In fact, this Hon'ble Court, in the case of RE Special Reference (1965) 1 SCR 413 held as under:

"We ought to make it clear that we are dealing with the question of jurisdiction and are not concerned with the propriety or reasonableness of the exercise of such jurisdiction. Besides, in the case of a superior Court of Record, it is for the court to consider whether any matter falls within its jurisdiction or not. Unlike a Court of limited jurisdiction, the superior Court is entitled to determine for itself questions about its own jurisdiction. "Prima facie", says Halsbury, "no matter is deemed to be beyond the jurisdiction of a superior court unless it is expressly shown to be so, while nothing is within the jurisdiction of an inferior court unless it is expressly shown on the face of the proceedings that the particular matter is within the cognizance of the particular court [Halsbury's Laws of England, vol. 9, p. 349]"

The Ld. Tribunal has violated the above principle of law in every respect.

- O. BECAUSE on the true construction of the provisions of the Act and the legislative scheme, the mandate of the NGT Act envisages 'remedial approach' as opposed to punitive approach. The principle is applicable with greater significance in the cases of industries which have been, pre-existing the enforcement of the Water Act, 1974. The Board, at a given point of time had taken such an approach and approved

expansion of the project, finding the industry to be environmentally compliant. Arbitrary imposition of such heavy compensation would render the Appellant industry practically non-functional, causing tremendous economic loss not only to the Appellant industry, but also depriving large number of employees and their families of employment on the one hand, and cause serious prejudice to the interest of the farmers on the others. Thus, the impugned order is legally unsustainable, and economically and socially prejudicial to all the stakeholders.

P. BECAUSE the Appellant voluntarily and with the intention of carrying out its Corporate Social Responsibility has, amongst others, provided for:

- a. Irrigation network for nearly 2,000 acres of land in the surrounding six villages.
- b. Sewage and pipeline system in the surrounding villages.
- c. Village treatment plant in two villages namely Bharatpurajattan and Raniaia.
- d. Solar lighting system by installing 150 solar lights in the villages.
- e. Construction of village streets.
- f. Sewing machines for unemployed women and catered to the additional drinking water requirements of the population.

All the above activities are being carried out by the Appellant industry while being entirely environmentally compliant. If the Appellant Industry shut down and/or is unable to bear the economic impediments are created on the basis of the report it will be entirely unjust and inequitable.

The Appellant industry was inspected on various occasions over the last years and was never found to be non-compliant whenever any direction was issued. The Appellant industry complied with the same without delay and default. The alleged violation is without substance, scientific analysis and is based upon the reports which are in admissible in law.

Q. BECAUSE the Appellant Industry has made recognisable contribution to the economic growth and area including the six villages. Besides providing employment to large number of persons in the Appellant Industry nearly has a workforce of 1800 persons (Approx) out of which 1400 persons (Approx) are locals; it has provided employment to so many persons directly while indirectly a large population of the area is dependent upon the carrying on of business by the Appellant Industry. For instance, large number of trucks and other transportation vehicles are engaged by the Appellant Industry in the normal course of its business for bringing the raw material and transportation of the finished product. Nearly 250 trucks have been engaged by the Appellant Industry, thus providing indirect employment to nearly more than 1,000 persons only to this aspect. The Appellant Industry, by providing employment has enhanced the literacy rate and economic condition of the residents of that area. It is therefore, appropriate that any coercive direction are not issued against the Appellant Industry that to on unsubstantiated premise.

R. BECAUSE the Appellant Industry also uses the crop residue from the agricultural fields as a raw material in its

manufacturing process. Thus, it serves a dual beneficial social and environmental purpose. Firstly, it provides an incentive to the farmers not to burn their crop stubble as they would be able to get money for the same. In this way, it prevents air pollution. Secondly, the Appellant Industry helps in reduction of carbon footprint to the benefit of the ambient air quality. It needs to be reiterated that the Appellant Industry is the primary industry in the area which is providing employment directly and indirectly to large population in the radius of 50 kms.

S. BECAUSE the Appellant Industry has always complied with the requirements of environmental laws. In fact, with the intent to ameliorate parameters of its trade effluent values beyond the prescribed values, the Appellant Industry has taken various progressive measures of environmental protection in its process and treatment of the effluent. Keeping in view the increased demand of water in the area, the Appellant Industry has constructed additional plant providing better and sophisticated mechanism, in order to further adopt best practises. Till date from the entire irrigated land, the Appellant Industry has not received any complaint from the farmers on the contrary as a precautionary measure; the soil quality test carried out by the Appellant Industry has never shown negative impacts. Some of the best practices adopted for better results can be stated as follows:

- i. Use of entire black liquor generated from pulping of agro residue goes to Chemical Recovery Plant (CRP) whereas the entire black liquor from Wood Pulping goes to

Fluidized Bed Reactor and Soda Ash is recovered as a by-product.

- ii. To handle the use of excessive chemicals in pulp bleaching process, industry has installed Extended Delignification through Oxygen (ODL unit).
- iii. The other significant approach followed by the industry relates to use of back water from Chlorination stage, Oxidation Extraction Stage and Hypo Bleaching Stage for washing EP stage and discharging minimum possible effluent to the ETP from these stages.
- iv. In addition to the above, it is pertinent to note that by the end of July the following will be completed and made operational.

- ECF
- Inlet flow meters.
- Outlet flow meter.
- Rapid flow meter (Rapid flash mixture has already been provided).

The industry has already incurred an expenditure of nearly Rs. 50 crores. This is primarily for expansion and even to meet the most stringent standards being prescribed.

T. BECAUSE the above practices and improvements have been introduced with the twin purpose of serving the cause of expansion and secondly to bring further improvement in the value of the effluent which are already within the prescribed limits. Thus, in the submission of the Appellant, any order

directly or indirectly affecting the working of the Appellant Industry would have serious prejudicial impacts.

- U. BECAUSE Appellant Industry has never operated without obtaining consent of the Board and other clearances, permissions, authorization as required under the various environmental laws. There being no direct scientific and legally admissible evidence to show that the Appellant Industry was causing pollution and the fact that the consent to operate has been granted by the Board, the issuance of any Order, direction, directly or indirectly effecting the carrying on the business and process of the Appellant Industry would, in the respectful submission of the Appellant be without jurisdiction and contrary to the intent of law for preferring remedial approach to a prohibitory approach particularly keeping in view the facts and circumstances of the present case.
- V. BECAUSE no statutory notice is contemplated under Sections 21 & 22 of the Act and the rules claimed thereunder was served upon the industry except on 17.01.2019. Thus, the collection of samples itself of all other takes is vitiated in law.
- W. BECAUSE the sample was not collected from the final outlet of the industry. The law places restrictions on the use of the outlet for discharge on land, water body and other permissible points of discharge.
- X. BECAUSE the Trade Effluent Samples were collected from the pit at Point 'X', shown in the map which is only 24 inches

(approx.) deep, the sample being collected through bucket. It is more than probable that the biomass became a part of the Trade Effluent Sample and gave higher values. The Online Monitoring System and the Board accredited laboratory clearly demonstrate that the Trade Effluent from the industry of the Appellant did not violate the prescribed parameters. The values were well within the permissible limit.

- Y. BECAUSE on 17.01.2019, the Trade Effluent Samples were collected, divided into three parts as per law but the sample was neither sent to State Laboratory and/or the Central Board Laboratory despite specific request of the representative of the Appellant industry. No reports thereof have been referred to or provided to the Appellant.
- Z. BECAUSE copies of the Joint Inspection Report have never been provided to the Appellant in accordance with the provisions of the Act.
- AA. BECAUSE the Trade Effluent Samples were collected from the mouth of the valve of the Irrigation Network in the field of Satnam Singh on 27.05.2018, even thereof variations were found to be of negligible nature primarily for the reason that the mouth of the valve remains exposed and is covered by mud and other pollutants that in the very nature of things would enhance the values violative of prescribed parameters. The mouth of the valve might be having mud accumulated dry effluent and even the rust which all will affect the BOD and COD values.

- BB. BECAUSE the irony of improper inspection besides its illegalities within the framework of scientific analysis is that on 27.05.2018 sample was collected from the premises outlet of the ETP as well as from the land of Satnam Singh downstream the industry. The sample was collected from mouth of the valve laid down by the Appellant industry but which is totally expose to rigors of weather, mud collection effected by accumulation of Trade Effluent. The sample collected from the outlet of the industry was within the prescribed parameters and the sample collected from land of Mr. Satnam Singh was found to be violative in terms of BOD and TSS only, for the adherence of the parameters at the land of Mr. Satnam Singh, the Appellant industry cannot be held directly or indirectly responsible within the provisions of the Act.
- CC. BECAUSE the sample on 15.11.2018 was collected from the Low Lying Area on the land of Manjit Singh which had cumulative effluent. The values of the Trade Effluent taken from the outlet point of the ETP in the premises as well as from the land of Manjit Singh had been found to be violative of the prescribed values difference on values was more than three times. There is fundamental scientific discrepancy/infirmities in collection and analysis analyzing of the Trade Effluent.
- DD. BECAUSE the collected sample was not maintained at the requisite temperature and in the prescribed manner. The Joint Inspection Team did not carry any ice box or chemicals to be added to the effluent to ensure that the values of the Trade Effluent during transit do not get alter and especially to the prejudice of the Appellant Industry.

The Trade Effluent was required to be tested within 24 hours which again appears to have not been adhered to by the team. Online Monitoring System, which is connected to the CPCB server was found to be working appropriately. No complaint from the Board was ever received either on their inspection or otherwise and the Online Monitoring System shows that the Trade Effluent from the outlet of the industry always adhere to the prescribed parameters. Thus, there was no violation and there was no occasion for imposition of any parameters.

EE. BECAUSE illegal encashment of Bank Guarantee of Rs. 10 lakhs by the Punjab Pollution control Board, along with submission of another Rs. 50 lakhs as bank guarantee, without any basis in law has prejudicially affected the Appellant. Furthermore, imposition of proposed environmental compensation, in the absence of any illegality, by the Ld. National Green Tribunal is not only against the Principles of Natural Justice but also imposes upon the Appellant double punishment and the Appellant has suffered from, consequent double jeopardy against the Constitution of India.

13. The Appellant craves leave to add to the grounds mentioned above as also to produce all additional documents that may be considered necessary to assist this Hon'ble Court to adjudicate upon this Appeal.

14. It is submitted that the Appellant has not filed any other Petition/Appeal of similar nature in this Hon'ble Court or any other Court.

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PRAYER

It is therefore most respectfully prayed that this Hon'ble Court may most graciously be pleased to:

- (i) Admit and Allow the present Appeal against the Impugned Order dated 14.03.2019 passed by the Learned National Green Tribunal, Principal Bench, New Delhi in Original Application No. 850 of 2018;
- (ii) Pass other or further order that this Hon'ble Court may deem fit and proper in the facts and circumstances of the present case.

FILED BY:

DRAWN BY: AMAN SHANKER

DRAWN ON: 01.07.2019
FILED ON: 01.07.2019

(AMIT AGRAWAL)
ADVOCATE FOR THE APPELLANT

IN THE SUPREME COURT OF INDIA
CIVIL APPELLATE JURISDICTION

CIVIL APPEAL NO. 5957 OF 2019

IN THE MATTER OF:

M/S KUANTUM PAPERS LTD.

...APPELLANT

VERSUS

UNION OF INDIA & ORS.

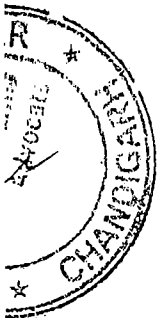
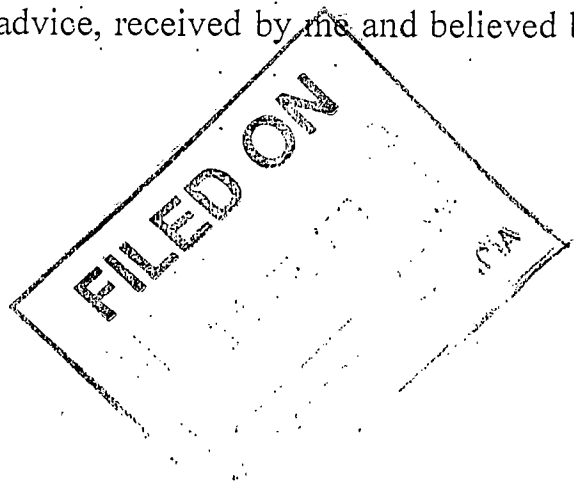
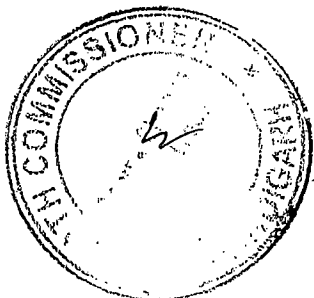
...RESPONDENTS

AFFIDAVIT

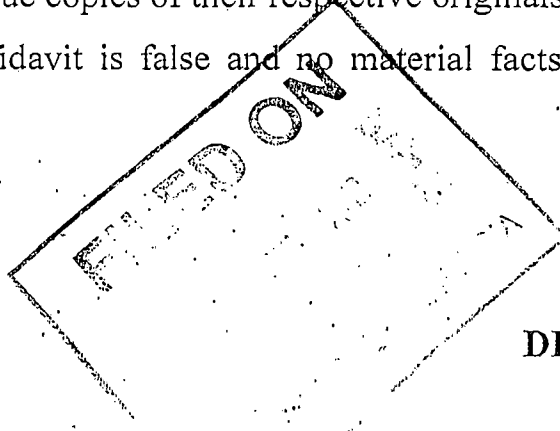
AFFIDAVIT OF SHRI PAVAN KHAITAN, S/O SHRI JAGESH KUMAR KHAITAN, AGED ABOUT 51 YEARS, W1A, FIRST FLOOR, TOWER-A, GODREJ ETERNIA, PLOT NO. 70, INDUSTRIAL AREA PHASE-1, CHANDIGARH, 160002.

I, Pavan Khaitan, the above named Deponent do hereby solemnly affirm and state as under:

1. That I am the Managing Director of the Appellant Company in the present Appeal/Petition and as such am well conversant with the facts and circumstances of the present case and hence am competent to swear this Affidavit.
2. That the contents of the accompanying Appeal/Petition, Synopsis, List of Date and Events have been understood by me and the same has been drafted under my instructions and the contents thereof, except the legal averments contained therein, are true and correct to the best of my knowledge and records. The legal averments contained therein are true and correct on the basis of the legal advice, received by me and believed by me to be true and correct.



- 3. That the annexures are true copies of their respective originals.
- 4. That no part of this affidavit is false and no material facts have been concealed therefrom.



[Handwritten Signature]
DEPONENT

VERIFICATION:

I, hereby verify that the contents of the present Affidavit are true and correct to the best of my knowledge and belief & based on the records, no part of it is false and no material facts have been concealed therefrom.

Verified at Chandigarh on this 25th day of June, 2019.

88
Certified that the above stated facts are true and correct to the best of my knowledge and belief & based on the records, no part of it is false and no material facts have been concealed therefrom.
Made on Oath. S.A. No. 25/6/19
at Chandigarh by *Pawan Khatwal*
S/WID. of *Jagesh Kumar*
Resident of *Plot No. 70 Sector 17 Chandigarh*
Who is the *Advocate*



[Handwritten Signature]
DEPONENT

[Signature]
Seema Sharma
Oath Commissioner
Estate Office - Sector 17
Chandigarh

ATTESTED

[Signature]
25/6/19
Seema Sharma
Oath Commissioner
Estate Office, Sector 17
Chandigarh

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

CIVIL APPEAL Diary No(s). 22822/2019

(Arising out of impugned final judgment and order dated 14-03-2019
in OA No. 850/2018 passed by the National Green Tribunal)

M/S. KUANTUM PAPERS LTD

Petitioner(s)

VERSUS

THE STATE OF PUNJAB & ANR.

Respondent(s)

(IA No.108876/2019-EXEMPTION FROM FILING C/C OF THE IMPUGNED
JUDGMENT and IA No.108874/2019-STAY APPLICATION and IA
No.108877/2019-EXEMPTION FROM FILING O.T. and IA No.108873/2019-
PERMISSION TO FILE APPEAL)

Date : 26-07-2019 This petition was called on for hearing today.

CORAM :

HON'BLE MR. JUSTICE ARUN MISHRA
HON'BLE MR. JUSTICE M.R. SHAHFor Petitioner(s) Mr. Mukul Rohatgi, Sr. Adv.
Ms. Kanika Agnihotri, Adv.
Ms. Eeshan Chaturvedi, Adv.
Mr. Aman Shanker, Adv.
Mr. Gagandeep Singh, Adv.
Mr. Amit Agrawal, AOR
Ms. Aanchal Tikmani, Adv.

For Respondent(s)

UPON hearing the counsel the Court made the following
O R D E R

Permission to file civil appeal is granted.

Issue notice.

Subject to the final decision, let the proceedings by Punjab
Pollution Control Board go on. However, in case any order is
passed the same may not be given effect to without permission from
this Court.(NARENDRA PRASAD)
COURT MASTER(JAGDISH CHANDER)
COURT MASTER

450
319

Letters RO'sss



Punjab Pollution Control Board

ANNEXURE R-30

Zonal office, Near PSIEC, Water Tank, Focal Point, Jalandhar

Phone No. 0181-2601612

www.ppcb.gov.in

Email ID – seeppcbjal@gmail.com

Z.O/No 2358

Date 11 / 08 / 2020

To

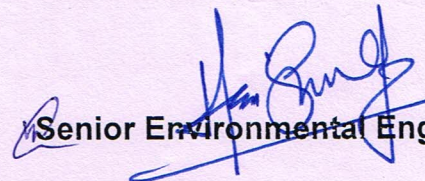
M/s Kuantam Papers Ltd.,
Village Saila Khurd, Tehsil Garhshankar,
Distt. Hoshiarpur.

Sub:- Report of the team visited the industry on 10/02/2020.

It is intimated that as per decision of the Hon'ble Chairman of the Board, the industry was visited by the team of officers of the Board on 10/02/2020. The report of the team alongwith conclusion & recommendations is enclosed herewith for compliance.

Further, as decided by the Competent Authority, you are hereby directed to submit Bank Guarantee of Rs. 50 lacs as an assurance to comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and to comply with the decisions of the personal hearing including the submissions made orally during the hearing / submitted in writing vide letter dated 24/04/2019, in compliance to the decisions of the hearing dated 24/04/2019.

DA:- As above.


Senior Environmental Engineer

Endst. No.....

Dated.....

A copy of the above is forwarded to the Environmental Engineer, Punjab Pollution Control Board, Regional office, Hoshiarpur for information & necessary action.

DA:- As above.


Senior Environmental Engineer

Subject: Visit Report of M/s Kuantum Papers Ltd, Village Sailsa Khurd, Tehsil Garhshankar, Distt Hoshiarpur

Sr. No.	Name & address of the industry	:	M/S Kuantum Papers Ltd, Village Sailsa Khurd, Tehsil Garhshankar, Distt Hoshiarpur
1.	Name of Visiting Officers	:	1. Er. G.S Majithia, CEE, Jalandhar. 2. Er. Harbir Singh, SEE, PPCB, Jalandhar. 3. Er. M.L Chauhan, EE, PPCB, Hoshiarpur. 4. Er. Pooja Sharma, AEE, PPCB, Hoshiarpur. 5. Er. Kamaljit Singh, AEE, PPCB, Hoshiarpur. 6. Sh. Sandeep Gupta, ASO, Z.O Lab, Jalandha. 7. Er. Maninderjit Singh, JEE, PPCB, Hoshiarpur
2.	Name of the person contacted	:	Sh. R.K Dhingra, (GM) and his team
3.	Date of visit	:	10.02.2020

BACKGROUND

The industry was given hearing before the Worthy Chairman of the Board on 05.02.2019, 24.04.2019 & 24.09.2019. The worthy Chairman of the Board on 24.09.2019 constituted a committee of the following Officers of the Board to visit the industry to check the various compliances made by the industry under the Water (Prevention & Control of Pollution) Act, 1974 as well as to carry out the monitoring of the ETP:-

1. Chief Environmental Engineer, Jalandhar
2. Senior Environmental Engineer, Zonal Office, Jalandhar
3. Environmental Engineer, Regional Office Hoshiarpur
4. Asstt. Scientific Officer, ZO Lab, Jalandhar

Verification of various compliances & observations of the visiting team

The industry was in operation during visit. The compliance of the various decisions made by the industry was verified by the visiting team and the detail is as under:-

Page 1 of 9

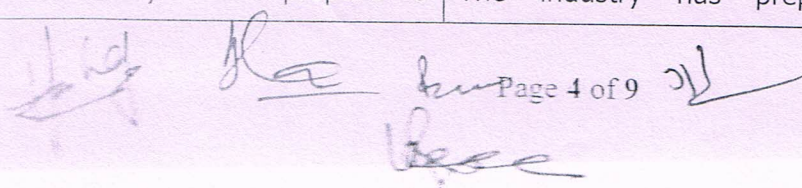
A) Compliance of the decisions taken in the hearing dated 05.02.2019

Decision taken in the hearing	Compliance verified by the Team
<p>1. The industry shall engage CPPRI, Saharanpur and get its existing ETP and chemical recovery plant audited and a proposal be prepared for up-gradation required in existing ETP and chemical recovery plant, so as to meet the effluent standards as prescribed under the law and the report be submitted to the PPCB within 21 days.</p>	<p>1. The industry has got conducted the Performance Evaluation of existing ETP from CPPRI in the month of April, 2019 and the CPPRI has recommended that:-</p> <ul style="list-style-type: none"> • based on the analysis of effluent samples collected and analysed by CPPRI, the overall performance of existing ETP of Kuantum Paper Ltd., Saila Khurd, comprising of Bio-Clarifier, UASB reactor, primary clarifier, aeration tank 1, 2 & 3, secondary clarifier and tertiary clarifier as indicated in the report has been found to satisfactory in context with compliance with stipulated norms. • However, the industry is advised to optimize the dosage of PAC & Flocculent to further reduce the level of suspended solids in the effluent after tertiary treatment. <p>2. The ETP was visited by the team and found that the industry has upgraded the existing ETP by way of segregating the treatment of High COD wastewater stream from the Low COD wastewater and new components have been added to the existing ETP. Equalization tank, Pre-aeration tank, Volute press, 5 no. Tube settler, Baffles in secondary clarifier. High COD & Low COD wastewater streams are being treated separately as per detail below:-</p> <p>(i) The low COD wastewater stream is now collected in the newly constructed equalization tank from where it is fed into primary clarifier for further treatment and followed by No. aeration tanks followed by secondary clarifier.</p>

	<p>(ii) The high COD wastewater stream is fed directly into primary clarifier-I from where it goes into buffer tank, then to UASB tank followed by newly constructed 5 No. tube settlers and thereafter the effluent is fed into newly constructed 2 Pre-Aeration tank and then to aeration tank followed by secondary clarifier.</p> <p>(iii) The industry has installed a new volute press in addition to existing 2 no. decanter for decanting of sludge from secondary clarifier.</p> <p>3. The industry proposes to replace the existing less efficient primary sludge handling system, where the primary sludge generated / removed is having 20% solids with the new three layer press system, where the primary sludge generated/ removed shall have 35% solids. The upgradation is in progress at site and shall be completed by 31.07.2020.</p> <p>4. The industry has installed OCEMS at the outlet of ETP and at the time of visit/sampling the readings were BOD=17 mg/l, TSS=25 mg/l, COD=152 mg/l and pH=8.01. The reading of flow on the EMF meter provided at outlet was 640 m³/hr.</p> <p>5. The industry has also installed a cardboard manufacturing plant for the further handling of primary clarifier sludge of the ETP and the said plant was in operation during visit.</p>
<p>2. The industry shall prepare an Irrigation Management Plan from a consultant of good repute for the whole of the command area available within the industry and outside the industry where treated effluent of the industry is utilized onto land for irrigation purpose</p>	<p>The industry has prepared an Irrigation Management Plan (IMP) for the utilization of treated effluent measuring 17000 m³/day and has got its approval from Department of Soil & Water Conservation, Hoshiarpur vide letter No. 97/D.B. dated 10.04.2019. In the approval letter, the industry has been advised that when the demand of water to farmer is decreased (no demand period/daily rainy season) then to use the</p>

[Handwritten signatures and initials]

<p>within 15 days and thereafter get it verified and approved from the Department of Soil & Water Conservation, Punjab and submit the same to the Punjab pollution Control Board within 21 days.</p>	<p>water in proper manner the area under irrigation should be increased. The good quality of water to be supplied through the underground pipeline for crops/human life or for use of other purposes and it shall be your responsibility to maintain good quality of water after its inspection/testing from time to time. The team also visited the area as per Irrigation Management Plan and found that the industry utilizes the treated effluent in the area as per the following details:-</p> <ol style="list-style-type: none"> 1. Industry owns about 110 acres of land, where Eucalyptus trees have been planted as per Karnal Technology inside the industry. 2. The industry has signed MoU with the farmers in the adjoining villages measuring about 2085 acres of agriculture land for ferti-irrigation of agricultural crops is done.
<p>3. The industry shall get the groundwater study of the whole command area where the treated effluent is utilized onto land for irrigation purpose from any expert institute in the field of Hydrogeology and submit report to Punjab Pollution Control Board within 21 days.</p>	<ul style="list-style-type: none"> • The industry has got conducted the Groundwater study of the area where the treated effluent is utilized onto land for irrigation/ferti-irrigation from M/s M/s Superlinks Water Will Company, Plot No. 62, Industrial Area, SAS Nagar, Mohali. In the study, groundwater samples have been collected from 15 locations in and around the industry. As per the analysis results of ground water samples, the ground water has not been adversely affected and is fit for irrigation purpose. • Punjab Pollution Control Board has also collected ground water samples from these 15 locations and sent these samples to PBTI for analysis and as per analysis report, the values of various parameters are found to be below detectable limits in most of the locations. In few areas like canteen, security gate, TDS and chlorides are on higher side.
<p>4. The industry shall prepare a</p>	<p>The industry has prepared Standard Operating</p>


 Page 4 of 9

<p>Standard Operating Procedure (SOP) for the operation of ETP and Chemical Recovery Plant (CRP) and shall maintain the record of operation of ETP on daily basis and shall submit monthly record duly verified by the Designated Authority of the industry to the Punjab Pollution Control Board.</p>	<p>Procedure (SOP) for the operation of ETP and CRP separately and same was checked at site and observed that that the SOPs are being followed. The record of operation of ETP being maintained by the industry was also checked at site and found O.K.</p>
<p>5. The industry shall obtain the permission / NOC from Central Ground Water Authority (CGWA) regarding abstraction of fresh water from all the existing tube-wells in the industry.</p>	<p>The industry has applied for the NOC of CGWA but the permission/NOC from CGWA not submitted.</p>
<p>6. The industry shall install electromagnetic flow meter at the inlet of the ETP before the equalization tank within 21 days.</p>	<p>The industry is having 2 waste water streams, which are separately enters the inlet of the ETP and are being treated separately. The industry has installed Electromagnetic Flow Meter on the pipelines carrying high COD wastewater at the inlet of ETP. The industry has also installed partial flume flow meter at the inlet of the equalization tank where low COD wastewater stream is entering.</p>
<p>7. The industry shall commission the Elemental Chlorine Free Bleaching (ECF) in the agro/wood based production by 31.03.2019.</p>	<p>As the industry is using 200 T/day agro waste and 180 T/day wood as raw material, so the industry requires to install two separately elemental chlorine free bleaching plants.</p> <ol style="list-style-type: none"> 1. The industry has commissioned the elemental chlorine free pre-bleaching in the agro based process plant and the same was found in operation. 2. The project for elemental chlorine free pre-bleaching in wood based plant, the work is in

<p>8. The industry shall install and commission a new soda recovery plant of 500 TPD capacity dry black liquor solids by 31.03.2020.</p>	<p>progress & likely to be completed by 30.09.2020.</p> <ul style="list-style-type: none"> The industry is having 1 No. Conventional Recovery Chemical Plant for agro pulp having capacity of 150 T from where caustic is recovered. The industry is also having 1 No. Fluidized Bed type Chemical Recovery Plant for hard wood having a capacity of 65 T from where soda ash is recovered. The industry propose to install a new Soda Recovery Plant of 500 TPD for handling 300 T of pulp. After the installation of New Soda Recovery Plant of 500 TPD, the industry shall dismantle the existing fluidized bed type Chemical Recovery Plant and shall operate only existing conventional Chemical Recovery Plant of 150 T capacity and New Soda Recovery Plant of 500 TPD capacity. The 500 TPD capacity New Soda Recovery Plant shall be commissioned by 30.09.2020.
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B) Decisions taken in the hearing dated 24.04.2019

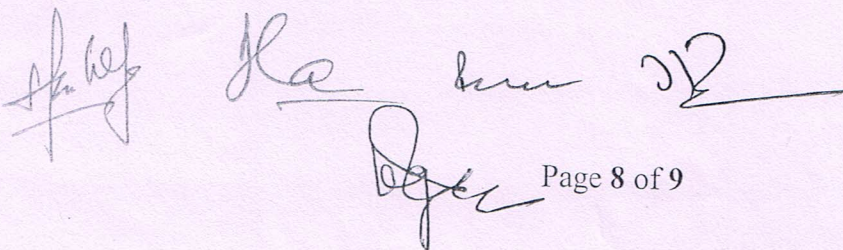
Decision taken in the hearing	Compliance verified by the Team
<p>1. In order to ensure proper and effective operation of the Effluent Treatment Plant and chemical recovery plant and considering the violations mentioned herein above, the industry is hereby directed to curtail 10% production capacity i.e. it shall produce not more than 337.5 TPD on an average (375 -- 37.5 TPD). Directions in this regard u/s 33-A of the Water Act, 1974 shall be issued separately.</p>	<p>As per record submitted by the industry, its production remained @ 336.2 TPD on an average, which is well within the allowed capacity of 337.5 TPD.</p>
<p>2. The EE, Regional office, Hoshiarpur is</p>	<p>The Lignin Precipitation Plant (LPP) was sealed</p>

<p>directed to seal the Lignin Precipitation Plant (LPP) of the industry with immediate effect and shall report in this regard to Zonal Office, Jalandhar within 7 days. This may also be made a part of the Directions to be issued to the industry u/s 33-A of the Water Act, 1974.</p>	<p>by R.O. Hoshiarpur on 30.04.2019 and seals were found intact during the present visit.</p>
<p>3. The EE, Regional Office, Hoshiarpur is directed to encash the Bank Guarantee of Rs. 10.00 lakhs (Rupees Ten Lakhs Only), which has already been submitted by the industry to the Board as an assurance to comply with the provisions of the Water Act, 1974.</p>	<p>The bank guarantee of Rs. 10.00 Lakhs was encashed by Regional Office, Hoshiarpur.</p>
<p>4. The industry is given a time period of three months from the date of hearing to remove all the discrepancies / observations of the Board made above and to ensure the compliance of commitments made by the industry orally during the hearing / submitted in writing vide letter dated 24.4.2019.</p>	<p>The de-foamer dozing was being done at site at inlet drain. The Central Well of secondary clarifier was found repaired. One more baffle wall in the Secondary Clarifier was also found added. The industry has not taken significant steps to reduce the fresh water consumption. The industry has provided 5 rainwater harvesting points dedicated for collection from 4 no. roofs rainwater and 2 Rain Water Harvesting pits are still remaining.</p>
<p>5. The industry is directed to furnish a fresh bank guarantee of Rs. 50.00 lakhs (Rupees Fifty Lakhs Only) to the Board within 7 days as an assurance to comply with the provisions of Water Act, 1974 and to comply with the decisions of the personal hearing including the submissions made orally during the hearing / submitted in writing vide letter</p>	<p>The industry has not submitted bank guarantee of Rs. 50.00 Lakhs.</p>

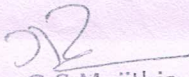
dated 24.4.2019. In case, the industry fails to make the compliance of the observations mentioned above, within a stipulated period of three months, the BG of Rs. 50.00 Lakhs shall be encashed and further action under the Water Act, 1974 shall be initiated.

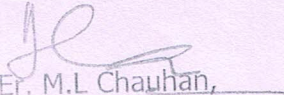
7. Conclusion & Recommendations:

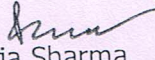
- 1) The industry as per the recommendations of CPPRI, need to take additional steps to optimize the dosage of PAC & Flocculent to further reduce the level of suspended solids in the effluent after territory treatment.
- 2) The industry should provide proper mixing chamber at the final outlet of ETP where the treated effluent from High COD and Low COD effluent stream got collected, so that treated effluent samples are collected properly and the probes of OCEMS in the final mixing chamber are fixed properly.
- 3) The ETP area needs to be stabilized with interlocking tiles. The ETP also needs to be properly painted with description of the equipments and a display Board of the layout of the ETP should be installed near the inlet of equalization tank and at the outlet of ETP.
- 4) The industry shall remove its pipelines laid for irrigation purposes inside the industry on both sides of the Nariala Choe and this area shall not be used for irrigation purpose.
- 5) The industry shall display the SOPs for the operation of the ETP's at the inlet and outlet of the ETP's.
- 6) The industry shall display the SOPs for the CRP at the entrance of the Chemical Recovery Plant.
- 7) The industry shall commission its new sludge handling mechanism consisting of three layer Belt Press system by 31.07.2020.

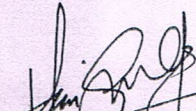


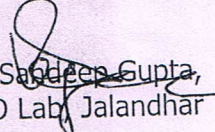
- 8) The industry shall commission its New Soda Chemical Recovery Plant of 500 T capacity by 30.09.2020 and shall dismantle the existing 65 T fluidized bed Chemical Recovery Plant.
- 9) During no demand period as per the observation of the Department of Soil & Water Conservation, Punjab, the industry shall submit an Action Plan for the utilization of treated wastewater.
- 10) The industry shall commission the Elemental Chlorine Free Plant in the paper plant where wood is used as raw material by 30.09.2020.
- 11) The industry shall submit the Bank Guarantee of Rs.50 Lacs, immediately.
- 12) The industry shall submit an Action Plan for the utilization of entire fuel ash and submit it to the Punjab Pollution Control Board by 31.07.2020.


Er. G.S Majithia,
CEE, Jalandhar


Er. M.L Chauhan,
EE, PPCB, Hoshiarpur


Er. Pooja Sharma,
AEE, PPCB, Hoshiarpur


Er. Harbir Singh,
SEE, PPCB, Jalandhar


Saandeep Gupta,
ASO, Z.O Lab, Jalandhar

ANNEXURE R-31

IN THE SUPREME COURT OF INDIA
CIVIL APPELLATE JURISDICTIONCIVIL APPEAL NO(S). 5957 OF 2019

M/S KUANTUM PAPERS LTD

Appellant(s)

VERSUS

THE STATE OF PUNJAB & ANR.

Respondent(s)

O R D E R

1. Application for impleadment is allowed.
2. This appeal is against the order passed by the Principal Bench of the National Green Tribunal (for short, 'the Tribunal') in Original Application No. 850 of 2018 dated 14.03.2019. The issue before the Tribunal related to environmental pollution caused by the appellant M/s. Kuantum Paper Mill adversely affecting the inhabitants of Saila Khurd, Raniala, Saila Kalan, Jassoval, Majari, Paddi Khusi and Pensara village, District Hoshiarpur, Punjab.
3. By the order dated 19.12.2018, the Tribunal called for a joint report from the Central Pollution Control Board (CPCB) and Punjab State Pollution Control Board (PSPCB), on factual aspects and on the action, if any, taken pursuant to the

directions of the Tribunal. Accordingly, a joint report was filed before the Tribunal indicating the position as it were. The Tribunal has extracted the findings of the joint report in the impugned order before us.

4. The Tribunal by its order dated 14.03.2019, was of the opinion that the environmental transgressions are serious in nature but the action taken is inadequate. Having noticed that neither any closure has been ordered nor damages assessed and recovered, the Tribunal directed PSPCB to take appropriate action. The Tribunal also directed the Joint Committee to assess the quantum of damages payable in view of the environmental degradation caused by the Kuantum Paper Mill. In conclusion, the Tribunal directed a report to be filed within a period of one month and the case to be listed on 20.05.2019. It is at this stage that the appellant filed the present Civil Appeal.

5. In the present appeal filed by M/s Kuantum Papers Ltd., this Court by its order dated 26.07.2019 passed the following order:

"Permission to file civil appeal is granted.
Issue notice.

Subject to the final decision, let the proceedings by Punjab Pollution control Board go on. However, in case any order is passed the same may not be given effect to without permission from this Court."

6. Mr. P.S. Patwalia, learned senior counsel appearing on behalf of the appellant(s) submitted that in view of pendency of the matter before this Court, the amount to be quantified towards the environmental compensation has not been recovered from them and also that the Original Application is still pending before the Tribunal.

7. Having considered the matter in detail, we are of the opinion that as the order impugned before us is interim in nature, the Tribunal should proceed further and pass final order in the Original Application. In this view of the matter, we dispose of the present appeal and direct the Tribunal to take up the Original Application No. 850 of 2018 and pass appropriate orders after hearing all the parties.

8. We further direct that pending disposal of the Original Application, the interim order passed by this Court directing the order passed by the Punjab Pollution Control Board shall not be given effect to, shall continue till further orders that the Tribunal may pass after giving full opportunities to all the parties.

9. As the complaint against the appellant seems to be continuing from 2018, we request the Tribunal to dispose of the Original Application within a period of six months from the date of the receipt of this order. Needless to say, we have not expressed any opinion on the merits of the case.

10. The Civil Appeal is accordingly disposed of.

11. Pending application(s), if any, shall stand disposed of.

.....J.
[PAMIDIGHANTAM SRI NARASIMHA]

.....J.
[PANKAJ MITHAL]

New Delhi
August 23, 2024.

ITEM NO.33

COURT NO.15

SECTION XVII

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

Civil Appeal No(s). 5957/2019

M/S KUANTUM PAPERS LTD

Appellant(s)

VERSUS

THE STATE OF PUNJAB & ANR.

Respondent(s)

IA No. 97760/2022 - APPROPRIATE ORDERS/DIRECTIONS

IA No. 108876/2019 - EXEMPTION FROM FILING C/C OF THE IMPUGNED
JUDGMENT

IA No. 108877/2019 - EXEMPTION FROM FILING O.T.

IA No. 97779/2022 - INTERVENTION/IMPLEADMENT

IA No. 108874/2019 - STAY APPLICATION

Date : 23-08-2024 These matters were called on for hearing today.

CORAM : HON'BLE MR. JUSTICE PAMIDIGHANTAM SRI NARASIMHA
HON'BLE MR. JUSTICE PANKAJ MITHALFor Appellant(s) Mr. P.S. Patwalia, Sr. Adv.
Ms. Natasha Dalmia, AOR
Ms. Anisha Jain, Adv.For Respondent(s) Mr. Siddhant Sharma, AOR
Ms. Sheetal Dubey, Adv.Mr. Prateek K Chadha, AOR
Mr. Sreekar Aechuri, Adv.
Mr. Arjun Nayyar, Adv.UPON hearing the counsel the Court made the following
O R D E R

1. Application for impleadment is allowed.
2. The Civil Appeal is disposed of in terms of the Signed Order.
3. Pending application(s), if any, shall stand disposed of.

(KAPIL TANDON)
COURT MASTER (SH)(NIDHI WASON)
COURT MASTER (NSH)

(Signed Order is placed on the file)



Central Pollution Control Board
Regional Directorate
Chandigarh

ANNEXURE R-32

Inspection Report of M/s Kuantum Papers Ltd. Village-Saila Khurd, District -Hoshiarpur, Punjab

M/s Kuantum Papers Limited (hereafter referred to as "The unit") is located at Village Saila Khurd, District- Hoshiarpur (Punjab). The unit was inspected on January 23, 2023 by team of CPCB, Regional Directorate, Chandigarh, in pursuance of the VIP reference of Shri Manish Tewari, Hon'ble Member of Parliament (LOK SABHA) Sri Anandpur Sahib constituency addressed to Hon'ble Union Minister of Environment, Forest & Climate Change Sh. Bhupender Yadav on matter of issue regarding serious water pollution and air pollution at nearby villages by M/s Kuantum Papers Limited Saila Khurd, District-Hoshiarpur (Punjab). Further also highlighting the issue raised that the pollution levels, especially in the underground water, have now become a matter of serious concern for not only their health but the health of the future generations.

On the day of inspection, the unit was found operational. The team had carried out inspection of various sections of the unit and collected the samples from ETP to check the stipulated norms of effluent. Besides ground water samples were collected from piezometer wells inside the premise and tube wells of surrounding villages which are operated by farmers (Photograpghes taken during inspection enclosed as Annexure-I). During visit, team collected secondary information from the representative of the unit. Further feedback taken from the complainant and information were also taken from adjoining residents of villages about the above captioned matter of concern raised in the letter. The overall detail observations and recommendations are as follows:

01	Name of the industry & Complete Postal Address:	M/s Kuantum Papers Limited, Village SailaKhurd, Tehsil- Garhshakar District- Hoshiarpur (Punjab)			
02	Name of Contact person with designation Phone & Fax No/Email:	Mr. Ravindra Singh, General Manager (EHS) 7575805611			
03	Year of commissioning	1980			
04	Category of Industry	Large			
05	Installed Capacity, TPA	Consented by PPCB Writing & Printing Paper @ 450 MT/day (1,64,250 Metric Tonnes/ Annum) Co-generation Power @ 38 MW			
06	Energy required, KWH/MT	Year	2021-22	2020-21	2019-20
		-	1263	1267	1196
07	Status of consents &	a) Consent under Air (PCP) Act, 1981 : Valid up to 31-3-2023			

	Authorization (validity)	(Annexure-II) b) Consent under Water (PCP) Act, 1974 : valid up to 31-3-2023 (Annexure-III) c) HW Authorisation: valid upto 30-5-2023 (Annexure-IV)		
08	Product manufactured in TPD/TPM/TPA		TPD	
	S.No.	Product (grade/type) & By Product manufactured	Product manufactured in MTA	
			2021-22	2020-21
			2019-20	
	01	Writing & Printing Paper	151740	82531
			126633	
09	Raw material used / tonne of product			
	S.No.	Raw Materials (BDMT)	Raw Material Consumption Per tonne of Product	
			2021-22	2020-21
			2019-20	
	01	Bamboo / Wood / Bagasse / Wheat Straw / Others	1.656	1.321
	02	Imported Softwood / Hardwood	0.073	0.178
			0.242	
10	Process details with Material Balance:		Enclosed herewith	
11	Water Consumption & Waste Water Generated:			
	S.No.		Water Consumption, KLD	Wastewater Generated, KLD
				Water Consumption KL/MT of Paper produced
	01	Process	17500	16526
	03	Boiler & CRP	2500	860
	04	Domestic	140	114
				0.25
12	Effluent Treatment facilities provided, including STP & Disposal Details: Please see in observations			
	Sample collected form ETP analysed and results are: Please see in Observations			
	Parameters	pH	SS	BOD
				COD
	Inlet of ETP			
	Final treated effluent			
13	Whether ETP facilities adequate to achieve standards		Generally complying except SS	
14	Fuel Consumption			

S.No.	Type of Fuel	Fuel Consumption, MT or KL				
		2021-22	2020-21	2019-20		
01	Coal (MT)	151538	53704	64092		
02	Biomass (MT)	61448	76535	106071		
03	Diesel (KL)	391.897	343.856	272.996		
04	Furnace Oil (MT)	465.989	642.737	214.036		
15	Stack Details and Source Emission Status- Boiler stack and sources details enclosed					
S. No.	Stack Attached To	Stack Ht (m)	Stack Dia (m)	PM (mg/Nm ³)	Opacity meter provided	Control equipment
01	Power boiler @ 130 TPH	80m			Yes	ESP- 4 Field
02	Power boiler @60 TPH	70m			Yes	ESP- 5 Field
03	Recovery Boiler @21 TPH	70m			Yes	ESP- 2 Field
04	Recovery Boiler @65 TPH	75m			Yes	ESP- 8 Field
Boiler - All boiler capacity & APDC details enclosed						
S.No.	Capacity	No.	Air Control Equipment			
01	160 KVA @ 2 nos	02	Canopy with DG set			
02	50 KVA (01 no) & 30 KVA (01 no)	02	Canopy with DG set			
16	Whether APCDs provided are adequate to achieve standards			Yes, as per Online emission data		
17	Fugitive emission control and status --			Yes measures adopted		
<ul style="list-style-type: none"> Gas leakage detection and control measures adopted Pressure vessels periodically verified from competent authority For Raw material preparation Section, dust collection room provided. Water sprinkling system provided for dust suppression at coal handing area and raw material area 						
18	Ambient Air Quality Status: (Third Party Ambient air quality report carried out by Enviro Tech Laboratories on 30.12.2022. Analysis results of the same is presented below :					
S.No	Location	SO ₂ (µg/m ³)	NO _x (µg/m ³)	RSPM (µg/m ³)	PM-2.5 (µg/m ³)	
01	Near ETP area	15.3	21.5	78	43.5	
02	Near coal Screening area	18.4	26.7	90.1	46.2	

03	Near Boiler No 04	16.3	21.5	90.7	44.9
04	Near pulp mill wood chip feeding	13.9	20.4	89.1	43.7
19	The Hazardous and Other Waste Management Status -(From April 2021 to March-2022)				
S. No	HW Generated	Category	Authorised Quantity	Quantity Generated	HW Disposal
01	Process Sludge containing AOX (Adsorbable Organic Halides)	32.3	85 Ton/day	62.25 Ton/day	In house wet board manufacturing
02	Used Oil	5.1	0.6 KL/Annum	1.29 ltr/day	Authorized dealer
03	Wastes/Residues Containing Oil	5.2	1.0 Tonne/annum	0.50 MT/year	TSDf, Derabassi
04	Empty Containers with Chemicals	33.1	700 Nos/Annum	500 Nos/Annum	Authorized dealer

Observations:

1. The unit is engaged in production of Writing & Printing Paper with consented capacity 450 MT/Day using Agro waste like wheat straws, grass, wood chips and imported pulp. However, the unit is operating @ 427 MT/day as reported.
2. The unit has installed continuous cooking type digester for cooking of the agro pulp. However, the unit has also installed batch type digester for cooking the wood waste. Further the cooked pulp is washed through counter current type brown stock washer followed by wash presses for pulp washing.
3. On the day of visit, the unit and its ETP were found operational.
4. The unit is meeting its domestic and industrial water requirement through 08 Tube wells (Total -10 out of which 2 are dead i.e. not yielding water) and has installed electromagnetic flow meters on all the bore wells. The unit is also maintaining the record of water consumption from each well. As per log book record the water consumption of month December, 2022 is about 19470 m³/day.
5. The unit has obtained previous NOC valid up to 13/07/2011 from CGWA for abstraction of the ground water. However, the unit applied online application for permission to extract ground water to Punjab Water Regulation & Development Authority (PWRDA).
6. The water consumption of the industry was assessed from Form 5 (Environmental audit report) and as per log book records indicates fresh water consumption of the unit is about 49.8 m³/ Tonne of paper which is within the CPCB prescribed limits of for agro based 200 m³/Ton. The data indicates that the unit is generating waste water @39m³/Ton of paper and further also reported about 4.6 m³/ ton of paper effluent is recycled by the unit.

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7. On the day of visit, the team had collected samples from ETP to assess the efficiency of the treatment system. The analysis results of the same are presented below:

Sampling Locations	Parameters							
	pH	SS	MLSS	MLVSS	COD	BOD	TDS	SAR
Inlet of ETP low stream	6.5	1684	-	--	1817	528	--	--
Inlet of ETP High stream	6.6	3489	--	--	8798	2925	--	--
Aeration Tank-3	-	-	8998	4372	-	-	--	--
Aeration Tank-2			6768	3619	--	--	--	--
Final Outlet of ETP	7.6	62	--	--	127	24	1904	5.54
Standards	7.0-8.5	50	--	--	350	30	--	--

All values are in mg/l except pH

- ❖ It is evident from the above results that the unit is meeting the CPCB prescribed norms of effluent discharge except SS which is marginally on higher side. Moreover, the MLSS concentration in aeration tanks are found excess to the optimum range of 3200-3500 mg/l indicates that the ASP based ETP is not being operated properly.
 - ❖ The MLVSS/MLSS ratios were found 48 % in AT-3 and 54 % in AT-2 respectively. The lower MLVSS/MLSS ratio in the aeration tanks indicates the poor operation and maintenance of ETP also indicates bulking of sludge.
8. As per consent conditions, treated effluent to be used onto land for plantation / irrigation (approx. 110 Acres within premises for plantation and 2050 acres in nearby villages for irrigation.
9. As per consent domestic effluent to be discharged onto land for plantation /irrigation through septic tank followed by ETP.
10. On the day of visit team observed that the unit is segregating high COD & Low COD treatment stream for effective treatment of the effluent.
- (i) High COD Stream Treatment Process (COD-8798 mg/l, BOD-2925 mg/l):** The effluent coming from pulp washing and wet washing section is treated through a separate treatment process. This stream is comprised of Bio Clarifier (1105.8 m³) > UASB Reactor (3926.9 m³) > Tube Settlers (6 Nos each 58 m³) > Sedicell > Pre-Aeration Tank (3917 m³) > Aeration Tank-3 (4010 m³) > Secondary Clarifier-2 (1391.8 m³) > Geo Tubes (6 Nos each of capacity 60 m³). The biogas generated from UASB is used in house boiler.
- (ii) Low COD Stream Treatment Process (COD 1817 mg/l, BOD-528 mg/l):** The effluent coming from process area i.e. Paper Machines (04) sections contains low COD stream. This stream treatment is comprised of Equalization Tank (2744 m³) > Primary Clarifier (5101 m³) > Parallel Two Activated Sludge Tank (Aeration Tank-I @ 6670 m³ & Aeration Tank-2 @ capacity 4050 m³) > Secondary Clarifier-1(5101 m³).
- ❖ During visit, team observed that the high COD treated wet-washing effluent is mixed with Low COD process effluent stream and it is sent to mixing tank for own land plantation and irrigation to the nearby villages
11. On the day of visit, team observed that the unit has installed OCEMS at mixing Tank for measuring pH, TSS, COD, BOD, Flow and connected to CPCB / PPCB server.

G. Singh

12. Online value pH 7.57 (Temperature 35.1°C), BOD-17.1 mg/l, COD-175.9 mg/l, TSS-22.6 mg/l were respectively observed during sampling.
13. The settled sludge of wet washing effluent bio-clarifier, UASB Tank, Tube settlers and Sediecell and clarifiers is dewatered by passing through sludge screw press (4 no's each of 3 MT/day capacity) for dewatering and send to board manufacture section in house. Although, the settled sludge of process effluent is also dewatered through belt filter presses (02 no's each of capacity 35-40 m³/hr) and sludge also sent to in house board manufacturer section. All filtrate of screw press and belt filter press are fed into inlet of sediecell for further treatment.
14. The unit has installed a Chemical Recovery Plant (CRP) having 6-Stage MEE with recovery boilers 21 TPH and 65 TPH respectively. The black liquor having initial solids concentration of 16% - 18% is concentrated in a Multi-Effect Evaporator to about 55 - 60% percent solids. The strong black liquor is then fired in a recovery furnace. Due to high temperature, the inorganic chemicals present in the black liquor collected as a molten smelt at the bottom of the furnace. The smelt is then dissolved in water to form green liquor, which is transferred to a causticizing tank where quicklime (calcium oxide) is added to convert the solution back to white liquor for reusing in the digester system. A lime mud precipitates from the causticizing tank.
15. During visit, team observed that the unit has installed Turbo Spin Flash Calcinations Systems of capacity 160 Ton/day to regenerate quicklime from the lime mud.
16. The unit possesses valid consents upto 31/03/2023 under the water Act,1974 and the Air Act,1981 also authorization valid upto 30/05/2023 under the Hazardous and Other Wastes (Management & Trans boundary Movement) Rule,2016from PPCB.
17. The unit has installed 02 power boilers of 60 TPH, 130 TPH capacities. The fuels being used in these boilers are Rick husk, Coal and Furnace Oil. The boilers are equipped with individually ESP (ESP 04 fields, ESP 05 fields) as air pollution control device respectively.
18. The unit has made agreement with M/s Ultra Tech Cement Ltd. Nalagarh (HP) for selling/ lifting of the fly ash generated in house boilers.
19. The unit has a captive power plant of 38 MW capacity for generating electricity. The emissions from power plant are vented through ESP as Air Pollution control device.
20. The unit has installed online emission monitoring system at power boiler of capacities 130 TPH, 60 TPH and recovery boilers of capacities 65 TPH, 21 TPH respectively and its connected to CPCB/PPCB portal. On the day of visit, average day data of on line emission system of these boilers are tabulated below:

Boiler capacity	Fuel	Type	Online Emission Value of day average dated 23/01/23 (mg/Nm ³)		
			SPM	SOX	NOX
Power Boiler @ 60 TPH	Rice Husk + Coal	AFBC	31	83	42
Power Boiler @ 130 TPH	Rice Husk + Coal	CFBC	40	86	46
Recovery Boiler @ 65TPH	Black Liquor		43	89	49

All values are mg/Nm³

gmo

21. It is evident from the above results obtained from in-house on line emission monitoring system showed that the unit is meeting the CPCB prescribed stipulated emission norms.
22. Process generated (Digester and Blow Tank) odour is controlled by adding odour control enzyme based chemicals (Supplied by Preklean) at source. As reported by the unit, Chemical consumption about 1.5 Kg/Ton of pulp is used by the unit for process odour control. The unit was carried out monitoring of H₂S at different locations inside the premise. As reported about 0.3-0.5 PPM H₂S value found nearby foul condensate collection pit however other locations H₂S values were not observed.
23. As per irrigation management plan, the treated effluent is utilized for irrigation of the fields having an area about 2000 acres of the nearby villages. The treated effluent is utilized for irrigation of rice, maize and green fodder in the month of June to October. In the month of November to May, the treated effluent is utilized for irrigation of the crops namely wheat, sugar cane and barseen. Besides, the unit has its own plantation area and green area within its premises along with plantation area of the nearby farmers. During no demand period (15 Nov- 15 Dec), the treated effluent is utilized for plantation of eucalyptus trees and gardening maintained within the unit premise (about 110 acres) and outside of the nearby villages (85 Acres). During same time some part of treated effluent is also utilized for irrigation into 950 acres out of 2000 acres of land as mentioned.
24. Overall housekeeping of the unit was found satisfactory.
25. During visit, team had collected 6 ground water samples from Piezometer wells (02 inside the industry and 01 outside of the unit) and 03 tube wells maintained by farmers in surrounding area up to a distance of about 250m to 3Km of the industry. All collected samples were analyzed by adopting (BIS & APHA) at CPCB H.O. Delhi laboratory. Analysis results of samples are presented below :

S. No	Sample Code	Place of sample collection	Depth of the Piezometer wells & tube well as informed by the representatives	Physical appearance	Latitude	Longitude
1	GWK-01	From the Piezometer well installed inside the unit premise near yard area	28 m	Coloured & odourless	31.3085 76	76.07506
2	GWK-02	From the Piezometer well installed inside the unit premise near Canteen and ETP area	28 m	Coloured & odourless	31.3069	76.0751

Concluded

3	GWK-03	From the Piezometer well installed outside of unit Village Salla khurd (Cremation ground)	28m	Colourless & odourless	31.2997	76.0758
4	GWK-04	Tube well near Village Helran (4 Km away from the unit)	76m	Colourless & odourless	31.3146	76.1176
5	GWK-05	Tube well near Village Batla (2.5 Km away from the unit downstream)	90m	Colourless & odourless	31.3048	76.0997
6	GWK-06	Tube well near Village Jasowal (250 m from the unit boundary downstream)	76m	Colourless & odourless	31.3029	76.0818

Sample Code	Parameters								
	pH	EC	TDS	COD	Chloride	Turbidity	SO ₄	Na	Colour
GWK-I	6.9	1756	968	22	276	08	BDL	29	12
GWK-II	6.9	4062	2780	49	1240	16	143	70	15
GWK-III	7.3	973	586	04	74	05	149	15	10
GWK-IV	7.3	676	380	<5	12	01	24	11	16
GWK-V	7.4	545	304	<5	09	01	07	07	BDL
GWK-VI	7.4	648	370	<5	34	01	BDL	08	BDL
Permissible limit BIS 10500:2012	6.5-8.5	--	2000	--	1000	05	400	11	15

All values are mg/l except pH, Colour (Hazen), Turbidity (NTU) & Conductivity $\mu\text{mho/cm}$

Sample Code	Parameters								
	Fluoride	NO ₃	NH ₃ -N	T. Alk	T. Hard	SAR	Ca	Mg	Boron
GWK-I	0.2	0.2	1.0	510	574	0.4	172	38	BDL
GWK-II	0.3	0.5	0.9	488	1270	0.8	384	82	BDL
GWK-III	0.3	0.5	<0.2	415	328	0.4	85	30	BDL
GWK-IV	0.2	6.0	<0.2	270	294	0.3	69	31	BDL
GWK-V	0.2	2.91	<0.2	394	259	0.2	62	27	BDL
GWK-VI	0.3	4.70	<0.2	315	303	0.2	67	35	BDL
Permissible limit BIS 10500:2012	1.0	45	0.5	600	600	.	200	100	1.0

All values are mg/l

- The high concentration of TDS (2780 mg/l) in one piezometer well located at inside the unit premise (GWK-II) has been found excess the permissible limits of 2000 mg/l as per IS 10500:2012 drinking water standards is due to leaching of industrial waste / salts which may lead to increase in TDS values. However, other collected Ground Water sample TDS values were found within permissible limit.
- The value of High COD was found in the ground water sample collected from the piezometer well (GWK-I upstream, COD-22 mg/l) and Piezometer Well (GWK-II, Downstream, COD 49 mg/l) which may indicate ground water contamination. Further also other Ground Water parameters (EC, TDS, chloride, Turbidity, Sodium and ammonia Total Hardness) in these piezometer wells showed increasing trends.
- It is evident from the above ground water analysis results which indicates that the ground water is being contaminated the upstream and downstream of the piezometer well inside the premises of the unit. All value of the above ground water parameters showing increased trend at the downstream of the ground water which may indicate that the ground source is polluted due to discharge of the industrial effluent / waste leaching into soil the ground water or other anthropogenic activities may be contaminated. However, the sample collected from surrounding villages tube wells does not show ground water contamination

Irrigation suitability:

- On the basis of SAR range, irrigation water can be classified into four classes as SAR < 10 (ideal or excellent), 10–18 (good), 18–26 (doubtful) and > 26 (unsuitable).
- All the samples collected are having the values of SAR in the range of 0.2 to 0.8, hence falling in the ideal or excellent category for irrigation use.
- From the above Ground water analysis results revealed that all values are found within permissible limit of the BIS Drinking water standards.

26. Heavy metal analysis results of the collected ground water sample are tabulated below :

Sample Code	Parameters								
	Cr	Mn	Ni	Fe	Se	Zn	Cd	Cu	Pb
GWK-01	0.01	1.53	BDL	1.93	BDL	0.06	BDL	0.01	0.01
GWK-02	BDL	0.92	0.01	1.47	BDL	BDL	BDL	0.03	0.03
GWK-03	BDL	0.02	BDL	0.61	BDL	BDL	BDL	0.01	0.03
GWK-04	0.01	BDL	BDL	0.04	BDL	BDL	BDL	BDL	BDL
GWK-05	BDL	BDL	BDL	0.04	BDL	BDL	BDL	BDL	BDL
GWK-06	BDL	0.01	BDL	0.08	BDL	BDL	BDL	BDL	BDL
Permissible limit(10500:2012)	0.05	0.30	0.02	0.30	0.01	05	0.003	0.05	0.01

All values are in mg/l

Gm

- The higher value of Iron (Fe) from sample collected Piezometer well GWK-01 (near yard area) & GWK-02 (near canteen) inside the unit premise whereas piezometer well GWK-03 located cremation ground outside the unit premise which may be due to iron fitting in the pipeline laid for abstraction of the ground water.
 - Further the higher value of lead (Pb) was found at piezometer wells (GWK-02 inside the unit, GWK-03 outside the unit) which may be due to iron fitting in the pipeline laid for abstraction of the ground water whereas remaining ground water samples were found within permissible limit.
27. **Feedback from the Complainant:** On the day of visit, CPCB team interacted with complainant Sh. Liykat Ali resident Salla Khurd reported the unit located nearby to my house. The chemical effluent /toxic gases generated from paper mill are damaging their family health and its live stock. Presently Sh. Liykat Ali has been shifted about 5 km away from the unit. Further he has reported that nearby land of the unit and its house has been sold to the unit. The reason of complaint by Sh. Liykat Ali seems to be personnel as his land / house has been purchased by M/s Kuantum Papers Limited in Rs 3,500000/- (As per copy of Registry as Annexure-V). He has withdrawn his complaint in office of Sub-Divisional Magistrate, Tehsil Garhsankar, District Hoshiarpur, Punjab on 04.10.2022. He has withdrawn his complaint in DC office copy (enclosed as annexure-VI). During visit the team, interacted with local villages representative informed that odour is coming from the paper mill when wind direction towards their villages.

Recommendation(s)

1. The unit shall obtain NOC from Punjab Water Regulation & Development Authority (PWRDA) for abstraction of the ground water.
2. Operation and maintenance of ETP should be upgraded so as to achieve the prescribed effluent norms specially for TSS.
3. The unit should enhance its ground water monitoring network (1st shallow aquifer) in command area where treated wastewater is used for irrigation to assess the ground water contamination.
4. The unit shall carry out a comprehensive ground water study by engaging the reputed agency and submit the report to CPCB/PPCB.
5. The unit shall submit a time bound action plan for bio-remediation of the existing contaminated ground water within the premises.
6. The unit shall make an appropriate remedial measure for preventing the ground water contamination in their premise piezometer wells.

7. The industry should engage an agricultural scientist or tie-up with an agricultural university or institute for advice on the utilization or the rate of application of the effluent for irrigation considering the agro-climatic conditions.
 8. The unit should make necessary and adequate arrangement to hold back the effluent in case of failure of re-circulation system /effluent treatment plant.
 9. The unit should make proper disposal of the effluent so as to ensure that no stagnation occurs inside and outside the industrial premise during rainy season and no demand period.
 10. The unit shall prepare Irrigation management plan showing therein the distribution system for conveying waste water for application on land for irrigation along with the crop pattern for the year.
 11. The industry should prepare a comprehensive Irrigation Management Plan (IMP), which should include the following, in consultation with the agricultural scientist or Agriculture University / institute and submit to PPCB which should verify the same while issuing Consent to the industry.
 12. The unit should ensure that no water pollution problem is created in the area due to discharge of effluents from its industrial premises.
 13. The unit should install suitable odour control system as per CREP recommendation, 2003.
 14. The unit shall ensure regular maintenance and operation & calibration of the on-line system so as to obtain continuous reliable accurate results.
- In view of above recommendations it is suggested that direction under section 5 of E (P) Act, 1986 may be issued to unit for complying all recommendations in time bound manner.


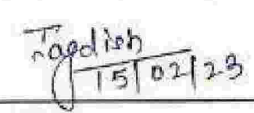

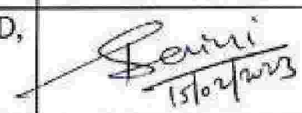
Conclusion:

The results of ground water monitoring conducted in surrounding villages indicate that there is no ground water contamination due to Paper Mills. However samples taken from two piezometers installed within premises near to ETP area shows ground water contamination.

The unit has installed ETP and Online Continuous Effluent Monitoring System (OCEMS) which is linked to PPCB & CPCB. Treated effluent is complying E(P)Act, 1986 standard except TSS which is marginally on higher side but OCEMS was meeting TSS and other Parameters at the time of monitoring. As the unit is using treated effluent in irrigation, PPCB should not permit the use of treated effluent in irrigation / land application without submission of comprehensive irrigation

management plan (IMP), by the respective unit as per CPCB guideline of 2019, in consultations with Agricultural Scientist or Agricultural University/Institute and same should be verified while issuing consent to the industry. In case of observation of any deterioration of the soil and ground water quality parameters in the assessment by Agriculture Scientist or Agricultural University/Institute, the utilization of effluent should be stopped immediately and the industry should inform the PPCB, accordingly. The industry shall be solely responsible for reclaiming the soil and water quality at their cost in the affected area.

Inspection Team:

Name & Designation of inspecting team	Signature
Sh. Gurnam Singh, Regional Director, CPCB, RD, Chandigarh	 15/02/2023
Sh. J.P. Meena, Sc.-'D', CPCB, RD, Chandigarh	 15/02/23
Sh. Pradeep Kumar, JLA, CPCB, RD, Chandigarh	 15/02/2023
Sh. Pankaj Saini, Office Assistant (Scientific), CPCB, RD, Chandigarh	 15/02/2023

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ANNEXURE R-33



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार
MINISTRY OF ENVIRONMENT FOREST & CLIMATE CHANGE GOVT OF INDIA

By Speed Post

CP-14/1/2023-TECH-RD-CHANDIGARH-RD(Chandigarh) May 17, 2023

To,

The Chairman,
Punjab Pollution Control Board,
Head Office, Vatavaran Bhawan,
Nabha Road, Patiala-147 001,
Punjab

Direction under section 18(1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 to Punjab Pollution Control Board (PPCB) in the matter of complaint regarding pollution caused by M/s Kuantum Paper Ltd. Village-Saila Khurd, Hoshiarpur, Punjab.

WHEREAS, the Central Government has notified the standards for discharge of environmental pollutants from various categories of industries under the Environment (Protection) Act, 1986 and the rules framed there under; and

WHEREAS, Central Pollution Control Board (CPCB) received a letter dated 02.01.2023 of Shri Manish Tewari, Hon'ble Member of Parliament (Lok Sabha) addressed to Hon'ble Union Minister for Environment, Forest & Climate Change Sh. Bhupender Yadav regarding pollution being caused by M/s Kuantum Paper Ltd., village Saila Khurd, District-Hoshiarpur, Punjab. The Hon'ble MP Sh. Manish Tewari in its said letter has raised various issues & requested to kindly send a team of CPCB to carry out a thorough investigation into the alleged pollution being caused by the said Unit and ensure that this problem is mitigated & that the problem is either brought within permissible limits permitted by the law or other penal action may be taken in order to save the life & health of people who live in the adjoining villages; and

WHEREAS, in pursuant to the above said letter dated 02.01.2023, M/s Kuantam Paper Ltd., Village Saila Khurd, District-Hoshiarpur (Punjab)(*hereinafter referred as 'the Unit'*) and its adjoining area was visited by a team of officials of CPCB on 23.01.2023. The inspection report is annexed at **Annexure-I**. The inspection team made the following observations:

1. M/s Kuantum Paper Ltd. (the unit) is engaged in manufacturing of writing & printing paper with installed capacity of 450MT/Day using Agro & Wood based raw material like wheat straw, Bagasse/grass, wood chips, imported softwood/Hardwood etc. The Unit is operating @ 427MT/Day.
2. On the day of inspection, the Unit & its ETP were found operational.
3. The Unit have valid consent under the Water Act, 1974 & Air Act, 1981 with validity up to 31.03.2023. The Unit has valid Authorization under Hazardous & Other Waste Rules 2016, with validity up to 30.05.2023.
4. The Unit has installed continuous cooking type digester for cooking of the Agro based raw material. However, the Unit also have batch type digester for cooking the wood waste.
5. The Unit has installed a Chemical Recovery Plant(CRP) having 06 stage MEE with recovery boilers 21TPH & 65 TPH for black liquor management.

‘परिवेश भवन’ पर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाईट/Website : www.cpcb.nic.in

6. The Unit is meeting its domestic and industrial water requirement through 08 tube wells [total-10 out of which 02 are defunct (not yielding water)].
 7. The Unit has installed electromagnetic flow-meters on all the borewells. The Unit is maintaining the record of water consumption from each well. As per logbook record, the water consumption in the month of Dec, 2022 was about 19470m³/day.
 8. The Unit has obtained previous NOC valid up to 13/07/2011 from CGWA for abstraction of the ground water. The Unit has applied online application for permission to extract ground water to Punjab Water Regulation & Development Authority (PWRDA).
 9. The water consumption of the Unit was assessed from environmental audit report & log book record indicate that fresh water consumption of the Unit is about 49.8m³/ton of paper which is within CPCB prescribed limit of Agro based Units. The data indicates that the Unit is generating wastewater @39m³/ton of paper and further also reported about 4.6m³/ton of effluent is recycled by the Unit.
-
10. On the day of visit, the team observed that the Unit is segregating high COD & low COD effluent stream for effective treatment of the effluent. For High COD stream treatment process (effluent from pulp washing & wet washing) comprised of Bio-Clarifier, UASB reactor, Tube Settlers, SediCell, Pre-Aeration tank, Aeration tank-3 (AT-3), Secondary Clarifier-2, Geo Tubes. For low COD stream the treatment process (effluent from process area i.e. paper machines section) consist of Equalization tank, Primary Clarifier, Parallel two Activated Sludge Tank (AT-1& 02), Secondary Clarifier-1.
 11. As per consent conditions, treated effluent to be used onto land for plantation/irrigation (approx. 110 acres within premises for plantation and 250 acres in nearby village for irrigation) and domestic effluent to be discharged onto land through septic tank followed by ETP for plantation/irrigation.
 12. The inspection team collected samples from ETP to assess the efficiency of the treatment system and lab analysis result of the samples collected from the outlet of the ETP showed pH-7.6 (*against norms of 7.0-8.5*), TSS-62 mg/l (*against norms of 50 mg/l*); COD-127 mg/l (*against norms of 350 mg/l*); BOD-24 mg/l (*against norms of 30 mg/l*); TDS-1904 and SAR-5.54 (*against norms of 26*). It is evident from the above lab result that the Unit is meeting with effluent discharge standard except TSS (62 mg/l against 50 mg/l) parameter. Moreover, the MLSS in aeration tank found to be in excess to the optimum range which indicates that ASP based ETP is not being operated properly.
 13. The Unit has installed OCEMS at mixing tank and connected to CPCB/PPCB server.
 14. The dewatered sludge is sent to in-house board manufacturing section.
 15. The Unit has installed 02 power boilers of 60TPH and 130TPH capacities using rice husk and coal as fuel and equipped with individual ESP as air pollution control device (APCD). The Unit has a captive power plant of 38 MW capacity for generation of electricity and installed ESP as APCD.

De

16. The Unit has installed online emission monitoring system at power boiler & recovery boilers & connected to CPCB/PPCB portal. OCEMS data on the day of inspection data was meeting with CPCB prescribed norms.
17. Process generated odour is controlled by adding odour control enzyme based chemical at source as reported by the Unit. The Unit has carried out monitoring of H₂S at different locations inside the premise. As reported about 0.3 - 0.5 ppm H₂S value found nearby foul condensate collection pit however other locations H₂S values were not observed.
18. Overall housekeeping of the Unit was found satisfactory.
19. During visit, team had collected 06 Ground water samples from 03 Piezometers (02 inside the Unit premises & 01 outside the premises) and 03 tube wells maintained by farmers in surrounding area up to a distance of about 250m to 3 km of the Unit. The analysis results of ground samples indicated the following:
 - i. The high concentration of TDS (2780mg/l against BIS permissible limit 2000 mg/l) in 01 piezometers well located inside the Unit premises indicate leaching of industrial effluent/waste which may lead to increase in TDS values. However, other collected ground water sample TDS values were found within permissible limit.
 - ii. The value of High COD (COD-22 mg/l) found in the groundwater sample collected from the piezometer well installed within the Unit premise at upstream & piezometer well at downstream (COD-49mg/l) indicates ground water contamination. Further, also other groundwater parameters (like EC, TDS, chloride, Turbidity, Sodium and Ammonia) in these two piezometer well (located within premises) showed increasing trends.
 - iii. Heavy metal analysis results of the collected ground samples showed higher value of iron (Fe) in piezometer well located near yard area & near canteen within the Unit premise. Higher value of lead (Pb) was found at piezometer well (located inside the Unit & outside the Unit) which may be due to iron fitting in the pipeline laid for abstraction of the ground water.

NOW, THEREFORE, in view of above observations and in exercise of the powers conferred under section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974, the following directions are issued to Punjab Pollution Control Board (PPCB) for its compliance:

1. Punjab Pollution Control Board (PPCB) shall issue appropriate direction to the Unit for taking necessary measures w.r.t violations observed in the inspection report (Annexure-I).
2. To ensure that the Unit enhance its ground water monitoring network in command area where treated wastewater is used for irrigation to assess the ground water quality. Also ensure to install at least 02 monitoring wells at downstream gradient away from the Unit premises for regular monitoring of groundwater quality.
3. To ensure that the Unit undertake detailed environmental site assessment, as per the CPCB guidelines, by engaging a professional agency/institute having expertise in assessment and remediation of contaminated groundwater and soil and submit the report within 60 days. If required as per detailed site assessment, the Unit

shall submit a DPR for remediation of groundwater contaminated area in around the premises, and execute the work in the supervision of SPCB in a time bound manner.

4. To ensure that the Unit shall prepare a comprehensive irrigation management plan (IMP) as per CPCB guideline by engaging Agriculture Scientist or Agriculture University/Institute and submit report to PPCB and CPCB within 60 days. The PPCB shall verify the same while issuing the consent and the same shall be incorporated with Consent condition before issuance of Consent to Operate to the Unit for compliance.
5. To ensure that the Unit take all the appropriate remedial measures for the prevention of groundwater contamination in their premises piezometer wells.
6. To ensure that the Unit shall obtain NOC from PWRDA for abstraction of the ground water.
7. To ensure that the Unit shall comply with the CPCB guidelines for Utilization of Treated Effluent in Irrigation.
8. To ensure that the Unit shall make necessary arrangement to hold back the effluent in case of failure of re-circulation system /effluent treatment plant.
9. To ensure that no water pollution problem is created in the area due to discharge of effluent from the Unit premises and also ensure that no stagnation occurs inside & outside the Unit premises during rainy season and no demand period.
10. To ensure that the Unit should install suitable odour control system as per CREP recommendation, 2003.
11. To ensure that the Unit shall ensure regular maintenance & operation and calibration of the on-line system so as to obtain continuous reliable accurate results.

The action taken report shall be sent to the CPCB within 45 days from the date of receipt of this direction. Punjab Pollution Control Board (PPCB) shall also acknowledge the receipt of this direction to CPCB within 15 days from the date of the receipt.


(PRASHANT GARGAVA)
MEMBER SECRETARY

Enc: As above

Copy to:

1. **The Member Secretary**
Punjab Pollution Control Board,
Head Office, Vatavaran Bhawan,
Nabha Road, Patiala, Punjab

With a request to ensure compliance of the said direction issued u/s 18(1)(b) of the Water Act, 1974, please.

2. **The Regional Director,**
REGIONAL DIRECTORATE – Chandigarh
Central Pollution Control Board,
BSNL Telephone Exchange, 2nd Floor, Sector -49
C, Chandigarh – 160047 For information and necessary follow up
action please.
3. **The Director (CP Division)**
Ministry of Environment, Forest & Climate Change,
Indra Paryavaran Bhavan, JorBagh Road,
New Delhi-110003 For information, please.
4. The Division Head, IT Division, CPCB, Delhi : To upload the direction at CPCB website

(PRASHANT GARGAVA)
MEMBER SECRETARY

Dated: 19.10.2024

To,

- 1. MEMBER SECRETARY, CENTRAL POLLUTION CONTROL BOARD**
Parivesh Bhawan, East Arjun Nagar,
Delhi - 110032
Email: mscb.cpcb@nic.in

- 2. MEMBER SECRETARY, PUNJAB POLLUTION CONTROL BOARD**
Red Cross Bhawan, Sadiq Road,
Faridkot, Punjab - 151212
Email: msppcb@gmail.com/ msppcb@punjab.gov.in

- 3. CHIEF ENVIRONMENTAL ENGINEER**
Punjab Pollution Control Board, Regional Office
E-18, A Focal Point, Hoshiarpur - 141010
Email: ppcbrohoshiarpur@gmail.com

- 4. SAILA KHURD, DISTRICT HOSHIARPUR, PUNJAB**
through its Administrative Head
District Administrative Complex, Hoshiarpur – 146001
Email: rta.hspr@punjab.gov.in, ddpo.hspr@punjab.gov.in

**SUBJECT: REQUEST TO FURNISH TEST REPORTS/ CHAIN
OF CUSTODY & NOTICES ISSUED UNDER SECTION
21(3)(A) & 22 OF THE WATER ACT PERTAINING TO
SITE VISIT UNDERTAKEN AT THE FACTORY OF M/S
KUANTUM PAPERS PVT LTD.**

**REF: OA NO. 850 OF 2018 PENDING BEFORE THE HON'BLE
NATIONAL GREEN TRIBUNAL**

RESPECTFUL SIR,

1. That my Client M/s Kuantum Papers Pvt. Ltd (*hereinafter referred to as "the Unit"*)
having its Registered Office at Paper Mill Saila Khurd, 144 529, District Hoshiarpur,
Punjab and Head Office at W1A, First Floor, Tower A, Godrej Eternia, Plot No.70,
Industrial Area Phase.1, Chandigarh, 160002 160002 is engaged in the business of

manufacturing and trading of various kind of papers using wood, bagasse, wheat straw, sarkanda, veneer etc

2. That on the basis of a Complaint, the Punjab Pollution Control Board (*hereinafter referred to as "PPCB"*) visited the Unit on 27.05.2018 and collected Grab samples of effluent from inside the plant i.e. from the ETP as well as the pipes leading from the outlet of the ETP for irrigation in the field of one Sh. Satnam Singh, without giving any notice to the Unit as required under Section 21(3)(a) of the Water (Prevention and Control of Pollution) Act, 1974 (*hereinafter referred to the "Water Act, 1974"*). Thereafter, the said samples were sent for testing and only the results of the testing were enumerated in Show Cause Notice dated 06.09.2018. That the Final Test Reports are mandatorily to be provided to the Unit under Section 22 of the Water Act, 1974, which has not been done in the present case, despite repeated requests made previously.
3. That the Unit of my Client was again visited by the officials of PPCB and PBTI on 15.11.2018 without any Notice as required under Section 21(3)(a) of the Water Act, 1974 and collected Grab samples of effluents *interalia* from the outlet of ETP, and from an Agricultural field in Saila Kalan having low lying areas where effluent of the industry was accumulated and the said samples were sent for testing. Again, only the Results of the testing were enumerated in the Show Cause Notice dated 1.02.2019 and the Test Reports were not provided to the Unit as mandated under Section 22 of the Water Act, 1974.

-
4. That the Hon'ble National Green Tribunal *vide* Order dated 19.12.2018 passed in OA No. 850 of 2018 being '*Residents of Saila Khurd Raniala v State of Punjab*' constituted a Joint Committee comprising of Central Pollution Control Board and Punjab Pollution Control Board and directed it to furnish a Report based on factual aspect and action taken. That the said Joint Committee visited the Unit on 17.01.2019 and a Notice was duly given to the Unit. The said Joint Committee furnished a Joint Committee Report dated 13.02.2019 before the Hon'ble National Green Tribunal. However, neither the said Joint Committee Report dated 13.02.2019 nor the Test Reports were furnished to the Unit.
5. That Central Pollution Control Board has issued the '*Water sampling and preservation techniques*' wherein it has laid down a SOP/guidelines for collection of samples from industries, which has to be followed at the time of Sample Collection. It is submitted that in the interest of Natural Justice, the Chain of Custody of the samples collected on 27.05.2018, 15.11.2018 and 17.01.2019 from the point of collection of the sample till the test is conducted should be provided to the Unit since it is the Unit that is adversely getting effected by the said Test Reports.
- My Clients have independently got tests conducted from NABET Accredited laboratories by taking samples on the very same day as the PCB which demonstrated that the effluents were well within the prescribed limits.

6. Thus, you are mandatorily required to furnish copies of the following as per Section 21(3)(a) and 22 of the Water, and for effective and efficacious disposal of the OA No. 850 of 2018 before the Hon'ble National Green Tribunal:
- i. Copies of the Test Reports of the Grab sample collected by the PCB on 27.05.2018, 15.11.2018 and the Joint Committee on 17.01.2019.
 - ii. A Copy of the Chain of Custody of the samples collected on 27.05.2018, 15.11.2018 and 17.01.2019 from the point of collection of the sample till the Tests were conducted by the authorized laboratory.
 - iii. Copies of the Notice given to the Unit on 27.05.2018 and 15.11.2018 as required under Section 21(3)(a) of the Water (Prevention and Control of Pollution) Act, 1974, if any.

We request you to kindly furnish the aforesaid documents at the earliest to enable my Client to file its Reply/Objections to the Joint Committee Report before the Hon'ble National Green Tribunal in OA No. 850 of 2024 which is slated to come up for final hearing before the Hon'ble Tribunal on 27.11.2024.

This is for your kind consideration and Necessary Action.

Thanking you.

VANSHDEEP DALMIA

[Counsel for M/s Kuantum Papers in OA No. 850 of 2018]

VSD
\\TRUE COPY\\

ANNEXURE R-35

	PUNJAB POLLUTION CONTROL BOARD Regional Office, Hoshiarpur E18-A, Focal Point, Hoshiarpur	 LIFE Lifestyle for Environment
	eeppcbhoshiarpur@gmail.com	www.ppcb.gov.in
		01882-248020

No. 2413Date: 8/17/24

To

Sh. Vanshdeep Dalmia, (Advocate)
For M/s Kauntaum Papers in OA No. 850 of 2018
206, Jor Bagh, New Delhi – 110003,
Mobile No. 9810077085.

Sub:- Request to furnish test reports/ Chain of custody & Notices issued under section 21(3)(A) & 22 of the Water Act pertaining to site visit undertaken at the factory of M/s Kuantum Papers Pvt. Ltd.,

Ref. No. Your letter dated 19.10.2024.

In reference to above, it is intimated that the desired document required by you are as under:

- 1) Copies of Test Reports attached as Annexure –A.
- 2) Copies of the chain of custody of the samples collected attached as Annexure –B.

DA/As above


Environmental Engineer

2



Punjab Biotechnology Incubator

(Established by Govt. of Punjab)

A Component of Agri Food Biotechnology Cluster, Knowledge City, Mohali

An NABL Accredited Facility

BIS Approved | FSSAI Empanelled | EIC Approved | APEDA Approved | PPCB Approved | Notified State Water Lab - OP | Notified Under EPA - GOI



No.PBTI/ENV/180119/003779

Dated : 05/02/19

TEST REPORT

ULR : TC611719000000205P

Sample Registration No.

: PBTI/ENV/180119/003779

Sample code given by customer

: M/s Kuantum Papers Limited,Vill-Saila
Khurd,Teh-Garshankar,Distt-Hoshiarpur-ETP Outlet (QO 1 to QO3)

Issued to:

Punjab Pollution Control Board (PPCB)

Regional Office, E-18-A, Focal Point,
Hoshiarpur

Punjab

SAMPLE PARTICULARS

Your Ref. No. : Letter No.2Spl/Camp/,dt. 17/01/2019

Date of Receipt : 18/01/2019

Name/Nature of sample : **Treated Effluent**

Sample code given by customer : M/s Kuantum Papers Limited,Vill-Saila Khurd,Teh-Garshankar,Distt-Hoshiarpur-ETP Outlet (QO 1 to QO3)

Condition of the sample : Intact coded sample under refrigerated & preserved conditions

Brand name : NA

Qty/Pkg. : 6L (2Lx3) approx. in plastic cans & glass bottle

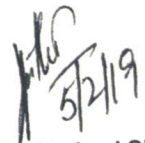
Batch No.: : NA

Date of Manufacture : : NA/NM

Sampling Method : : Sample not drawn by PBTI, sample drawn by PPCB.

Test Start Date : : 18/01/2019

Test Completion Date : : 05/02/2019


 Authorized Signatory
 Punjab Biotechnology Incubator
 Employee Code: 16

Note:

1. The above results pertain only to the sample tested.
2. The report shall not be used for advertising or any legal purpose without written permission from the Chief Executive Officer, Punjab Biotechnology Incubator.
3. This report cannot be re-produced, except when in full, without the written permission from the Chief Executive Officer, Punjab Biotechnology Incubator.
4. Perishable samples will be destroyed after testing, others after one month from the date of issue of the report, unless otherwise agreed with the customer or as required by the applicable regulations.

Format No : PBTI/F/5.10/02
 Revision No. 00

Page No. 1/

National Referral Lab for LMO/GMO Detection under Seeds Act 1966 & Referral Lab under Food Safety and Standards Act 200

SCO : 7&8, Phase-V, SAS Nagar (Mohali) - 160 059, Punjab, India
 Phone : +91 172-5020893, 5093595, 5020895, Tele. Fax : +91 172-5020895
 E-mail : pbt2005@yahoo.com; Website : www.pbttilabs.com

Dated :

ULR : TC61171900000205P

Sample Registration No.

: PBTI/ENV/180119/003779

Sample code given by customer

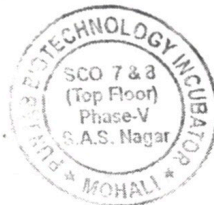
: M/s Kwantum Papers Limited, Vill-Saila
Khurd, Teh-Garshankar, Distt-Hoshiarpur-ETP Outlet (QO 1 to QO3)

Test Results

S.No.	Parameter	Results	Units	Standard / Specification / Method Followed
1	pH	7.63		IS 3025 (Part 11)
2	Total Suspended Solids (TSS)	87	mg/l	IS 3025 (Part 17)
3	Biochemical Oxygen Demand (BOD3 at 27oC)	106	mg/l	IS 3025 (Part 44)
4	Chemical Oxygen Demand (COD) Total	608	mg/l	IS 3025 (Part 58)
5	AOX (Adsorbable Organic Halides)	15.2	mg/l	ISO:9562:1989 (E)

5/2/19
Authorized Signatory

Punjab Biotechnology Incubator



7

PUNJAB POLLUTION CONTROL BOARD
Regional Office, Hoshiarpur
DETAILS OF BE SUPPLIED FOR THE COLLECTION OF SAMPLE

ART-A

1. Name & Address of the industry *M/s Kauntam Papers Ltd., vill Saida Khurd
Tehsil Gramshankar Distt Hoshiarpur*
2. Raw material used *wheat straw, Sankanda, wood waste chips, Bamboos etc.*
 - i. Product *Writing & Printing Paper*
 - ii. Processes involved *washing - Cooking - Pulping - washing - Bleaching - Mochening - cutting etc.*
 - i. Give the name of the processes in operation at the time of sampling *All processes in operation*
 - ii. The number of wastewater streams from different processes along with discharge of each. *Two no waste water streams*

1	33.8 m ³ /hr
2	96.0 m ³ /hr
3	132.5 m ³ /hr
4	103.0 m ³ /hr
5	252.2 m ³ /hr
6	110 m ³ /hr
 - i. Quantity of industrial effluent discharge per hour, (in liters)/m³/day.

1	132.5 m ³ /hr
2	103.0 m ³ /hr
3	252.2 m ³ /hr
4	110 m ³ /hr
 - ii. Is the discharge of industrial effluent continuous or intermittent and if intermittent, date & time of its discharges *→ continuous*
 - iii. Is the quantity and quality of industrial effluent from different streams uniform through out or not. *Uniform*
 - iv. Present method of disposal of industrial effluent. *Onto land for plantation for irrigation in fields outside*
 - i. Working hours *24 hr*
 - ii. Closed day *As per industry Requirement*
- Number of outlets through which industrial effluent is discharged/carried outside the industry. *6 No.'s*

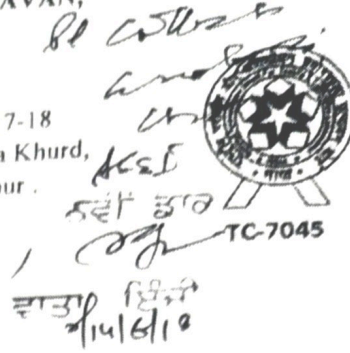
Name of the occupants/representative of the industry with designation present at the time of sampling. *Sh. Vijay Motten (Senior Manager)*

Process not working at the time of sampling & why? *All in operation*

Parameters to be analyzed.	Point of sample Collection	Code	Parameters to be Analyze
<input checked="" type="checkbox"/> Organic parameter (freezer below 4°C)	Final outlet at ETP Aeration tank	A-1	TSS, PH, BOD COD SAR AOX MLSS
<input type="checkbox"/> Metals (pH less than 2 with HNO ₃)		A-2	
<input type="checkbox"/> Cyanide (pH above 10 with NaOH)		A-3	
		A-4	
		A-5	
<input checked="" type="checkbox"/> Oil & grease (separate 1 Lt. sample glass bottles & freeze) <input type="checkbox"/> Others	Underground pipeline outlet near tubewell of Satnam Singh s/o Sohan Singh vill Naurala.	B1 B2 B3 B4	TSS, PH, BOD COD SAR AOX

2847
14/6/18
POLLUTION CONTROL BOARD VATAVARAN BHAVAN,
NABHA ROAD, PATIALA
WATER ANALYSIS REPORT

- | | |
|--|--|
| 1. Laboratory Sample No. | 147-149 H.O. Lab. Monitoring/2017-18 |
| 2. Name of Industry | M/s Kauntam Papers Ltd, Vill Saira Khurd,
Tehsil Garshankar, Distt. Hoshiarpur. |
| 3. Name of Sample collecting Officer | Er. Pooja Sharma AEE, |
| 4. Designation of authorizing Test | EE, RO, Hoshiarpur. |
| 5. Type of Sample | Grab |
| 6. Date & Time of Sample collection | 27.05.2018 |
| 7. Date & Time of Sample receipt in Lab. | 28.05.2018 |
| 8. Period of Analysis | 28.05.2018 to 07.06.2018 |
| 9. Test Methods | As per relevant parts of IS:3025/Methods of APHA |



Results

Sr. No.	Parameters	Final outlet of ETP	Aeration Tank	Underground Pipe line Outlet near tubewell of Satnam singh s/o Sohan singh vill Narila
1.	pH	7.76	-	7.63
2.	Total Suspended Solids mg/l	38	-	92
3.	Chemical Oxygen Demand mg/l	205	-	232
4.	Bio-chemical Oxygen Demand mg/l	26	-	34
5.	*Sodium Absorption Ratio (SAR)	5.96	-	5.72
6.	*Mixed Liquid Suspended Solids mg/l	-	6290	-

Not covered under scope of NABL

- Note: 1. The sample collected from final outlet of ETP was Brownish in colour.
2. The sample collected from Underground Pipe line Outlet near tubewell of Satnam singh s/o Sohan singh vill Narila was Brownish turbid in colour.

---End of Report---

J. Singh
5/6/18
Analyzed by

M. Prerna
8/6/18
Scientific Officer

Endst. No: 16 778-79

Dt. 8-6-18

A copy of the above is forwarded to the:-

1. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office, Jalandhar.
2. The Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur.

J. Singh
5/6/18
Asstt. Scientific Officer

491
380

Punjab Biotechnology Incubator

(A State Government Undertaking)

A Component of Agri Food Biotechnology Cluster, Knowledge City, Mohali

BIS Approved | FSSAI Empanelled | EIC Approved | APEDA Approved | PPCB Approved | Notified State Water Lab - GOP | Notified Under EPA - GOI

No. PBTIENV/151118/002929

Dated :

TEST REPORT

ULR : TC611718000000345P

Sample Registration No.

Sample code given by customer

PBTI/ENV/151118/002929

Treated Water from Final Outlet

Issued to:

Punjab Pollution Control Board
Regional Office, Focal Point Near PSIEC Water Tank

Jalandhar
Punjab

SAMPLE PARTICULARS

Your Ref No

Letter No-1456 dt 12/11/2018

Date & Time of Sample Collection

15/11/2018 at 1:05pm

Date & Time of Sample Receipt in Lab

15/11/2018 at 6:15pm

Sample Identification No

PBTI/151118/01, dt. 15/11/18

Site of Sample Collection

M/s Kuantum Papers Limited, Village-Salla Khurd, Tehsil-Garhshankar

Name/Nature of sample

Treated Effluent

Type of Sample

Grab

Point of Sample Collection

Final Outlet

Condition of the sample on Receipt

Intact Coded Sample under refrigerated conditions

Qty/Pkg

13L in plastic & glass bottles

Sampling Method

Sample drawn by PBTi (Mr Amit) as per APHA guidelines

Test Start Date

15/11/2018

Test Completion Date

05/12/2018

Katla
5/12/18
Authorized Signatory

Punjab Biotechnology Incubator

Employee Code: 16

Note:

1. The above results pertain only to the sample tested
2. The report shall not be used for advertising or any legal purpose without written permission from the Chief Executive Officer, Punjab Biotechnology Incubator
3. This report cannot be re-produced, except when at full, without the written permission from the Chief Executive Officer, Punjab Biotechnology Incubator
4. Perishable samples will be destroyed after testing, others after one month from the date of issue of the report, unless otherwise agreed with the customer or as required by the applicable regulations

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Revision No: 00

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SCO: 7&8, Phase-V, SAS Nagar (Mohali) - 160 059, Punjab, India
Phone: +91 172-5020893, 5093595, 5053094, 5020895, Tele. Fax : +91 172-5020895
E-mail : pbt2005@yahoo.com; Website : www.pbttilabs.com

Dated :

ULR : TCE11718000000349P

Sample Registration No.

: PBT/ENV/151118/002933

Sample code given by customer

: From Land of Manjeet Singh, Salla Kalan

Test Results

S.No	Parameter	Results	Units	Test Method
1		7.51		IS 3025 (Part 11)
2	Total Solids (TS)	458	mg/l	IS 3025 (Part 17)
3	Biochemical Oxygen Demand (BOD ₅ at 27°C)	243	mg/l	IS 3025 (Part 44)
4	Chemical Oxygen Demand (COD) Total	1429	mg/l	IS 3025 (Part 58)
5	Sodium Azide Ion Ratio	4.2		USDA Guidelines
6	Total Dissolvable Organic Halides	23.5	mg/l	ISO 9562 (1989)

Analysis performed and reported from Mrs. Sophisticated Analytical Instruments Laboratories, Patiala

Handwritten signature
5/12/18

Authorized Signatory

Punjab Biotechnology Incubator



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PROOF OF SERVICE

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Dalmia Law Office <dalmialawoffices@gmail.com>

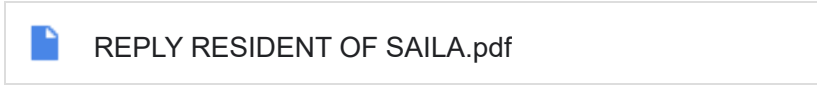
Service of Reply filed on behalf of Respondent No. 3 in OA No. 850 of 2018

1 message

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Mon, Nov 25, 2024 at 11:15 PM

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Sir,

Kindly find the attached reply filed by the Respondent No. 3 in the abovcaptioned matter.

Regards

Chambers of Vanshdeep Dalmia
Advocate on Record
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M: +91-9810077085