

Item No. 06

Court No. 1

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

Original Application No. 738/2018

Satpal Singh, Sarpanch, Gram Panchayat
Singhpura Sithna, Panipat

Applicant(s)

Versus

Indian Oil Corporation Ltd.
Panipat Refinery

Respondent(s)

Date of hearing: 10.05.2019

**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. Aman Lekhi, ASG, Mr. Ankur Sood, AOR
SC, Ms. Romila Mondal, Advocates
Mr. Anil Grover, AAG, Haryana with Mr. Rahul
Khurana, Advocate
Mr. Rajkumar, Advocate for CPCB

ORDER

1. Issue for consideration is the punitive action against violation of statutory environmental norms by the Indian Oil Corporation Ltd. (IOCL) Panipat Refinery, Panipat.
2. After considering a complaint that air and water pollution by Panipat Refinery was causing large scale diseases affecting the inhabitants of the area, a joint team comprising Central Pollution Control Board (CPCB), Haryana State Pollution Control Board (HSPCB) and Deputy Commissioner, Panipat was required to furnish an action taken report vide order dated 15.11.2018.

3. The report dated 15.01.2019 acknowledged enormous pollution. The samples from the Effluent Treatment Plant (ETP) were found to be non-compliant. Ambient air quality was exceeding the norms. VOCs were resulting in irritation to eyes and odour which was observed by the joint team during inspection. Untreated effluent was found to be discharged in the green belt areas. Unit was not complying with the conditions of recycling and reusing treated water. ETP was not being operated efficiently and was not adequate. Untreated effluents were being stored in open storage lagoon without VOC recovery system. The ground water samples were not complying with the norms. Relevant observations in the report are as follows:

“conclusions and recommendations:-

- 1. The Online Analyzers provided by the unit for monitoring of treated effluent quality and for air emission was found in working condition and transmitting real time data to CPCB/HSPCB server. However, the samples collected for analysis from the outlet of ETP and from Thirana Drain were found to be non-complying with the prescribed norms whereas results of the stream diverted to OCEMS in a room was found to be complying with the norms as per values recorded in OCEMS, which indicate that effluents stream used for online monitoring may not be the same as the final outlet of ETP. Therefore, sensors of Online Continuous Effluent Monitoring system needs to be installed directly into the final discharge rather than taking one small pipe line to a room for OCEMS as presently being done by the unit, to prevent tempering of the representative discharge sample.**
- 2. The ambient air quality data collected at different points at villages and within premises was found exceeding in PM₂ and PM₁₀ value of ambient air was found to be 290.0, 165.0, 123.5 and 176.5 against the limit of 100 mg/Nm³ which indicates that unit might be contributing to increase in PM value in ambient air the adjoining areas.**
- 3. State Pollution Control Board does not have the facility to monitor VOCs in the ambient air to know the impact of Unit w.r.t. VOCs in the surrounding area. However, irritation to eyes and odour was observed by the team in the vicinity of the Unit. A study to identify all possible sources of VOC emissions in the Unit including open untreated effluent storage earth tanks & other components**

of ETP for taking control measures periodical monitoring of the VOCs in the surrounding areas by external agency is strongly recommended.

4. **The untreated effluent was found discharged in Green Belt area outside the premises of the unit and was lying stagnant in the form of Cess Pool which may cause spread of odour in the nearby areas. The analysis of the sample collected from the Cess Poll reveals that the parameters are exceeding w.r.t. BOD (102, 1200, 880, 990 in mg/l) against the limit of 30 mg/l, COD (360,3580,2872,5472 in mg/l) against the limit of 250 mg/l, TSS (194, 124, 552, 252, 156 in mg/l) against the limit of 100 mg/l, Oil & Grease (16,13,17.5 in mg/l) against the limit of 10 mg/l & TDS (2520, 2824,2224,3050 in mg/l) against the limit of 2000 mg/l, which clearly shows that untreated effluent is being discharged into Green Belt. The unit has been granted consent to operate by Haryana State Pollution Control Board only for "Recycle and Reuse" of the trade effluent. Therefore, HSPCB need to direct the Unit to comply with the condition of "Recycle and Reuse" and stop all illegal means of discharge to avoid stagnation of treated effluent for preventing emission of VOCs and deterioration of ground water quality.**
5. **The unit is showing Zero Liquid Discharge in Environment Statement submitted by the unit for the year 2017-18 vide letter dated 24.09.2018. In compliance report submitted of MoEF&CC letter dated 05.07.2018 and as verified by the Regional Office of MoEF&CC vide letter dated 13.11.2017, it was verified that the unit is reusing the treated effluent from PTA-ETP (ETP-III) as a makeup to cooling towers and balance is used for irrigation in green belt. Whereas, the Unit has been granted consent to operate only for reuse and recycle of treated trade effluent. The Units needs to dismantle all the illegal effluent discharge points immediately to comply with the terms of the consent granted by the State Pollution Control Board.**
6. **The units not complying the conditions of the Recycle and Reuse as per the condition of Consent to Operate granted by the HSPCB as the unit is discharging effluent from PTA-ETP (ETP-III) into Thirana Drain. The discharge of the trade effluent in the open Thirana Drain has been found to be a major source of odour in the nearby area. This becomes most significant and critical in view of the fact that the drain is open and there is no dilution in the Thirana Drain for any other source and flow of industrial effluent with high potential of emitting VOCs across the drain may adversely affect the surrounding environment. The illegal discharge of effluent in to the Open Thirana Drain should be immediately stopped to avoid the contamination of ambient air and surface water.**
7. **The Concrete Lining of Thirana Drain was found ruptured at one point due to which effluent discharged in green belt by the unit was flowing in Thirana drain through**

the point of rupture. The unit needs to stop the discharge from this ruptured point along the green belt and shall close such illegal discharge point.

8. The details of the effluent samples collected from final outlet of ETP-I, ETP-II, ETP-III by the team are given below in Table IV with exceeding values shown in bold.

Table – IV

Parameter (mg/l)	Limit as per EP Act, 1986			ETP-I	ETP-II	ETP-III
	ETP-I,	ETP-II,	ETP-III			
TSS	20	100	100	11	24.0	142
BOD	15	30	30	21	48.0	170
COD	125	250	250	120	179	460
O&G	5	10	10	3.5	7.0	8.5
TDS	2000	2000	2000	1090	1491.0	2224

The unit is not meeting the discharge Norms for BOD in ETP-I (21>15), ETP-II (48>15) and ETP-III (170>30); COD in ETP-II (179>125) and ETP-III (460>250); Oil and Grease in ETP-II (7>5); TDS in ETP-III (2224>2000). **The results in above table show that either the unit is not operating its effluent treatment plant efficiently or the ETP installed by the Unit is not adequate.** The unit is discharging untreated effluent in Green Belts, outside the premises of the unit and into Thirana Drain which may result in odour problem in the nearby areas besides deterioration of ground water quality. The unit need to get the adequacy report of the effluent treatment plant done including adequacy for control, of VOCs from various ETP components for upgradation of effluent. The unit also needs to operate only legal and permitted mode of discharge/reuse of treated effluents. The HSPCB needs to issue necessary directions to the unit in this regard to comply with the terms of consent granted to the unit.

9. **The unit was found storing untreated effluent in open storage lagoon without any VOC recovery system for avoiding emission of VOCs.** This may be another source of VOC emissions and odour in nearby areas. Therefore, unit needs to make arrangement to cover all open potential sources of VOCs emissions in effluent treatment plant and recovery of VOCs after carrying out the study regarding VOC emitting potential/study of different components of effluent treatment plant.\
10. **The ground water samples collected from various locations in the vicinity of the Unit was found to be not complying with the acceptable norms prescribed by BIS for Drinking water in IS 10500 (2012).** The most of the samples were found to have significant values of Chemical Oxygen Demand (COD), which clearly indicate

contamination of the ground water with the external sources. A detailed study is required to be done in this regard to know the extent of damage done so far and the remediation required to restore the ground water quality beside monitoring of the ground water of the area to prevent further deterioration. This is extremely important and necessary to ensure supply of uncontaminated natural resources to surrounding areas.”

4. This Tribunal considered the matter on 01.03.2019 and found that the statutory regulator i.e. the State PCB was required not only to prohibit the polluting activities but also to recover exemplary compensation as well as take further punitive action. The Tribunal directed an assessment of damage caused to the public health and the environment be made by the Committee. The compensation was expected to be adequate to meet the cost of restoration of the environment and public health and deterrent.

5. As per the interim report dated 09.05.2019 filed by the HSPCB, prepared by the joint Committee comprising CPCB, HPCB and the Collector damage on account of oxygen depletion due to illegal discharge of effluent into the *Thirana* Drain from PTA Plant, as calculated by the joint Committee is Rs. 83.33 lakhs, damage due to untreated effluent in Cess Pool is Rs. 4.87 lakhs, cost of restoration of the environment is Rs. 9.96 crores, cost of damage due to discharge of TDS in *Thirana* drain is Rs. 7.34 crores. The total amount of compensation is Rs. 17.31 Crores. The Committee also observed as follows:

“The above cost of restoration is tentative and only on account of damage to the Environment with special reference to surface water. The damage caused to Public Health & Ground Water and the cost of Restoration are to be added once estimated by the Expert members from NEERI and CGWB co-opted by

the Joint Committee as per order of Hon'ble National Green Tribunal.

“This means that the Unit has produced 15073.8 MT production without meeting the norms during the non compliance period of 120 days , which is equivalent to (I/E i.e. 15073.8/1047) = 14.32 days of production of PTA Plant(J).”

6. The conclusion and recommendations of the Committee are as follows:

“Conclusions and Recommendations:

- **According to Joint Committee, the total cost of environmental damage caused by IOCL, Panipat Refinery, on account of illegal Discharge of Effluent into the Thirana Drain and on land in monetary terms is Rs. 88.21 lacs.**
- **The quantum of production made by Panipat Refinery by not complying with the environmental conditions prescribed in the Consent to Operate issued by Haryana State Pollution Control Board is 15073.8 MT which is equivalent to 14.32 days production of PTA Plant of Panipat Refinery. The unit may be directed to submit the amount of profit earned by him per day from the PTA Plant, so that total amount of profit earned by the unit from the production made without complying with the environmental norms could be calculated during non-compliance period i.e. 120 days.**
- **The estimated tentative Cost of Restoration of the Environmental damage caused on illegal discharge of effluent into the environment is Rs. 17.31 Crores. At this stage, the Joint Committee has proposed Tentative cost of Restoration equivalent to “Calculated cost of restoration x 2 times” to make it deterrent to some extent. However, once the assessment of environmental damage to public health and Ground water is concluded with the assistance of Co-opted**

Experts and the details of the profits earned by the Unit from the production made by violating the environmental norms, the Joint Committee may further enhance the deterrent effect for continuous and long term violations made by the unit by proposing the cost of Restoration/Environmental Compensation on exponential basis.

- Additional Time of 8 weeks and 3 months is required by the Expert co-opted by the Joint Committee for assessing the environmental damage caused to Ground Water and Public Health respectively. The cost of restoration will be updated and submitted to Hon'ble National Green Tribunal, based on the assessment of damage caused to Public Health and Ground Water, as per time line proposed by the Expert Members co-opted by the Joint Committee.
- **It is recommended to impose tentative cost of restoration of Rs. 17.31 Crores on IOCL Panipat Refinery which may be utilised for plantation of Forest Trees and Monitoring & planning for restoration of ground water quality. The Joint Committee will be submitting the update Cost of Restoration after concluding the assessment of environmental damage to Public Health and Ground Water within 3 months.**
- The Discharge of effluent into the Thirana drain has been stopped by the Unit from the Point observed by the Joint Committee w.e.f. 02/04/2019 in compliance of the directions issued by HSPCB.
- The Joint Committee will abide by all the further directions of Hon'ble NGT in this matter.”

7. Shri Aman Lekhi, learned Additional Solicitor General appearing for the IOCL has handed over a note giving response to the findings in the report dated 15.01.2019 as follows:

“Findings in the Report and IOCL’s Response

No.	FINDINGS IN THE REPORT		RESPONSE
1.	Page 7, point 4 (2 nd)	The Respondent could not produce document of	i. The issue has been needlessly added into the Report since the document was duly submitted

	Para)	permission for discharge into Thirana Drain from Irrigation Department	to the Committee. ii. The permission was granted vide Dept. Of Irrigation, Govt. of Haryana's letter dated 24.01.2003 and has been submitted to the Joint Team on 07.01.2019.[Pg. 403 of Vol-I of the Reply]
2.	Page 12, Point 7	The Concrete lining of Thirana Drain was found to be ruptured.	i. The rupture was in the area where the Drain passes through the Green Belt, which is an open area outside IOCL's boundary wall and is accessible to the general public. IOCL is not liable for maintenance of the Drain in this area. ii. Nevertheless, the alleged rupture was a normal course wear and tear and was repaired and fixed by IOCL by 13.12.2018. Repair of the rupture has been confirmed to HSPCB on 16.01.2019.[Pg.524@526, 527 of Reply]
3.	Pages 4,5,11	Ambient air quality was found exceeding in PM against the prescribed limit of 100 mg/Nm ³	i. Ambient air quality is an issue all over Northern India is not attributable to the Respondent. The Report itself acknowledges the fact that the Joint Team is unable to attribute the same to IOCL and only says that "the unit might be contributing to increase in PM values". ii. The sampler used by the Joint Team was placed at ground level, whereas the Guidelines for Measurement of Ambient Air Pollutants (NAAQMS/36/2012-13) issued by the CPCB provide that the inlet of the sampler should be at a height of 3-10 mts.
4.	Pages 10 & 11	While IOCL's Online Analysers were found to be in working order, the Joint Team	i. There was no violation or deviation from the prescribed norms in installing the online analysers. The online analysers were installed inside the plant

		<p>found that samples collected from the outlet of ETP and Thirana Drain were found non-compliant whereas results of the online analysers were found compliant.</p>	<p>premises under supervision and instructions of HSPCB. [Ref. CPCB Directions dated 05.02.2014].</p> <p>ii. In any event, IOCL has already complied with the suggestion of the Joint Team and shifted the online analysers to the new locations as suggested.</p>
5.	Page 12 & 13, point 8	<p>ETP 1 & 2: Table IV mentions TDS limit as 2000 mg/1 for treated effluent ex refinery.</p> <p>ETP 3: Table IV mentions limit of oil and grease for Petrochemical ETP (ETP 3) as 10mg/1 and limit of TDS as 2000 mg/1.</p>	<p>i. The report does not give any sources for the prescribed limits and has used wrong limits.</p> <p>ii. The applicable limits for ETP 1 & 2 (refinery units) are prescribed under Minimum National Standards for Petroleum Oil Refineries (Refineries MINAS).</p> <p>Under Refineries MINAS, there is no limit prescribed for TDS (applicable for ETP 1 & 2). [Ref. EPA Notification 18.03.2008]</p> <p>iii. The applicable limits for ETP 3 (Petrochemical unit) are prescribed for oil & grease and TDS (applicable for ETP 3). [Ref. EPA Notification 18.03.2008]</p>
6.	Page 12, 18	<p>Certain effluent samples collected from ETP-I, ETP-II and ETP-III are exceeding permissible limits.</p>	<p>i. The sample collection and testing by the Joint Team has not been done in accordance with the legally prescribed norms and parameters. [Ref. Pg. 299 & 300 of Vol. I of Reply & Pgs. 100, 102, 104 & 106 of the Report]</p> <p>ii. Under the applicable regulations/standards, the quantum of pollutants has to be calculated on the basis of daily average of concentration values (one 24-hourly composite sample or average of three grab samples), average flow of</p>

			<p>effluent during the day and crude capacity of the refinery. The Joint Team has not followed the prescribed methodology and has tested single samples rather than composite or grab samples as prescribed. [EPA Notification dated 18.03.2008]</p> <p>iii. The continuous testing and monitoring by approved laboratories and periodic inspections by HSPCB and CPCB have all found the Respondent's effluent discharge to be within the prescribed parameters. [Lab Results-Pg. 335, Vol-I of Reply and OCEMS-Pg. 341, Vol-I of the Reply]</p>
7.	Page 12, Point 4	<p>Untreated effluent was found discharged into the Green Belt and was stagnated in the area.</p>	<p>i. Untreated effluent is not discharged into the Green Belt. The finding is based on a single instance of accidental leakage caused by underground pipe burst due to civil/digging work by M/s. JCB (a civil contractor) in end of November 2018.</p> <p>ii The Report itself notes that the representatives of Panipat Refinery informed the Joint Team that the untreated effluent will be taken back into the ETP and the arrangement for the same was also shown to the Joint Team.[Ref. Pg. 9 of the Report].</p> <p>iii. The entire leakage was evacuated into ETP by 13.12.2018. [Pg.524@526, 527 Vol. II of Reply].</p> <p>iv. The regulations prescribed in MoEF Gazette Notification dated 18.03.2008 contemplate the possibility of accidental leakage and in such cases, the unit has to ensure repair within</p>

			<i>reasonable time frame.</i>
8.	<i>Page 8</i>	<i>Consent to Operate granted by HSPCB does not allow discharge of effluent into Thirana Drain.</i>	<p><i>The finding is ex facie erroneous. The Respondent has permission to discharge treated effluent into the Thirana Drain in terms of:</i></p> <p><i>(i) Consent to Establish dated 11.08.2000; [Pg 389@389, 390 of Vol. I of Reply.</i></p> <p><i>(ii) MoEF's Environment Clearance letter dated 30.04.2001; [Pg. 399 of Vol.I of Reply].</i></p> <p><i>(iii) Dept. Of Irrigation, Govt. of Haryana's letter dated 24.01.2003;[Pg. 403 of Vol. I of Reply]</i></p> <p><i>(iv)HSPCB's Consent to Operate as amended on 12.09.2017;[Pg. 420 of Vol. I of Reply].</i></p> <p><i>(v) MoEF letter dated 26.03.2018; [Pg. 435 of Vol. I of Reply].</i></p> <p><i>(vi) MoEF's Monitoring Report dated 13.11.2017; [Pg. 83 @ 84, 85 of the Reply].</i></p>

8. A reply affidavit has also been filed by the IOCL with reference to report dated 15.01.209 stating that the unit has Consent to Establish and permission to discharge effluents into the drain. Monitoring report submitted by the unit on 13.11.2017 mentions discharge of effluents into the drain. The unit has undertaken social welfare measures for safe drinking water, health, air and sanitation, education and employment enhancing skills, empowering women and socially/economically backward groups. It has been awarded many awards and commendations for commitment to the

environment. In its response to the HSPCB, the unit has placed on record future action plan undertaking to reduce carbon footprint by 18% and water footprint by 20% by 2020, covering drains with concrete slabs, installing VOC systems, reduction in water consumption, improving air quality, installing Ethanol Plant, etc. The unit also submitted letter dated 16.04.2019 to the HSPCB explaining its plan. The unit has hired services of Bio Petro Clean, an expert in the field for remedial measures and services of TERI to conduct environment damage assessment in the vicinity and services of NEERI to conduct environment impact study on air, water and soil from the refinery.

9. According to Respondent No. 1, the report of the joint Committee dated 09.05.2019 is unwarranted as impact of other industries in the vicinity has not been considered and the joint Committee did not give notice to the respondent.

10. Letter dated 05.04.2019 addressed to HSPCB by the Chief General Manager (Health, Safety and Environment) of the IOCL purports to give an action plan for complying with the observations of the inspection Committee deputed by this Tribunal. Even permission to discharge effluents in drain, relied upon by Respondent No. 1, cannot justify discharge of polluting effluents. Permission by Pollution Control Board can be only to discharge effluents as per laid down norms. No dilution is available in the drain and norms are being violated. The unit has now sought time to complete ZLD project. A public sector unit is expected to be a model for compliance of environmental norms. For pollution caused, liability is unavoidable.

11. We find that there is adequate material on record to hold that there is violation of environmental norms by Respondent No. 1. The inspection was carried out by the credible experts of the regulatory authorities, namely, the CPCB, the HSPCB under the direction of this Tribunal. Response of the unit itself shows that observations in the inspection report needed action on account of which an action plan has been submitted. The unit has also been served a show cause notice by HSPCB in exercise of statutory powers on 08.01.2019 to which reply has been submitted which may be dealt with as per law.

12. We are, thus, unable to accept the submission that no compensation may be required to be paid or that no further action be taken. Even if pollution is contributed by others, Respondent No. 1 cannot avoid responsibility. Only question is the quantum. The Committee has assessed interim compensation to be Rs. 17.31 Crores. Final assessment is to be made. If Respondent No. 1 wishes to object to the quantum determined in the interim report, it will be open to it to do so before the next date. However, pending further consideration, the interim amount must be deposited.

13. Accordingly, we direct that a sum of Rs. 17.31 Crores assessed by the Committee may be deposited by the unit within one month from today with the CPCB by way of interim compensation for restoration of the environment subject to further orders. Further action may be taken by the HSPCB in accordance with law and a report filed to this Tribunal by e-mail at ngt.filing@gmail.com. The Committee may also furnish its final report before the next date with a copy to

Respondent No. 1 preferably a week in advance so that Respondent No. 1 can respond to the same.

List for further consideration on 20.08.2019.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

May 10, 2019
Original Application No. 738/2018
DV

