

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

**Original Application No. 415 of 2015
(M.A. No. 967 of 2015, M.A. No. 68 of 2016, M.A. No. 341 of 2016
& M. A. No. 1310/2017)**

Vivek Kamboj & Anr. Vs. Union of India & Ors.

**CORAM : HON'BLE MR. JUSTICE (RETD.) ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE DR. JUSTICE (RETD.) JAWAD RAHIM, JUDICIAL MEMBER
HON'BLE MR. JUSTICE (RETD.) RAGHUVENDRA S. RATHORE, JUDICIAL MEMBER
HON'BLE DR. SATYAWAN SINGH GARBYAL, EXPERT MEMBER**

**Present: Applicant: Mr. Rahul Choudhary, Ms. Meera Gopal and Mr. Utkarsh Jain, Advs.
Respondent Dr. Abhishek Atrey, Adv. For MoEF
Respondent No. 2 & 4-8 Mr. Anil Grover, AAG, Haryana with Mr. Rahul Khurana and Mr. Mishal Vij, Adv. State & PCB
Mr. B.V. Niren, Adv for R-10.
Mr. Pawan Upadhyay and Mr. Krishna Kanodia, Adv.
Mr. Rajkumar, Adv. with Ms. Niti Choudhary, LA, LO for CPCB**

Date and Remarks	Orders of the Tribunal
<p align="center">Item No. 20 July 10, 2018 ss</p>	<p>1. This application has been filed with the following prayers:-</p> <p>(i) Direct the respondents to relocate the Bandhwari Solid Waste Plant and landfill site away from the forest and Aravali Hill area in time bound manner:</p> <p>(ii) Direct the Government of Haryana, State Pollution Control Board and other agencies to take immediate measures for restoration of the area and the lake by remediation measures to drain the surface water lake of leachate and treat the leachate, before if further contaminates the precious groundwater reserves of Gurgaon, Faridabad and Delhi.</p> <p>(iii) Direct the Respondents to identify all spots of waste dumping and remove all the waste lying on the Aravalli Hills of Faridabad, Gurgaon and</p>

	<p>Item No. 20</p> <p>July 10, 2018</p> <p>ss</p>	<p>restore it to its original position after receiving all the waste.</p> <p>(iv) Direct the Respondents to comply with the Bio-Medical Rules, 1998 and not to mix the bio-medical waste with municipal waste and ensure its proper disposal.</p> <p>(v) Direct the Respondents to inspect the ground water of the nearby areas of Delhi, Gurgaon, and Faridabad, to test for all possible contaminants and continue the same on a quarterly basis, to assess the long term impact of groundwater pollution in the vicinity of the landfill.</p> <p>(vi) Pass an order thereby imposing environmental cost on Municipal Corporation, Faridabad and Municipal Corporation, Gurgaon for causing pollution of the area and contaminating the ground water.</p> <p>(vii) Pass an order directing the set up of an expert committee to suggest areas where waste dumps, landfills, waste treatment plants may not be planned due to their eco-sensitive nature and higher risk of pollution, and steps for remediation at the existing Bandhwari plant.</p> <p>(viii) Direct the Government of Haryana to say all plans for locating any waste dumps, landfills, waste treatment plants, in eco-sensitive areas of Aravalli Hills, water bodies, river beds and floodplains.</p> <p>(ix) Direct the Government of Haryana to identify and zone sites for decentralized recycling, at sector, ward, and zone level in the town master plans.</p>
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	<p>Item No. 20</p> <p>July 10, 2018</p> <p>ss</p>	<p>2. On 28th October, 2015 this Tribunal directed the Authorities and the State of Haryana to take steps to ensure proper dumping of waste as well as proper maintenance, collection of the already dumped waste while ensuring it that it does not in any way contaminate the ground water.</p> <p>3. An inspection was conducted by the CPCB and as per its report dated 27th July, 2017 it made several recommendations which were noted in the order dated 18th January, 2018 as follows:-</p> <ul style="list-style-type: none">a) “Assess the total quantity of waste accumulated at the dumpsite.b) Prepare a plan for complete reclamation of waste in time bound manner.c) Compound wall should be constructed immediately where compound wall is collapsed.d) The storm water drain should be designed and constructed in such a way that the surface runoff water is diverted from the landfilling site and leachates from solid waste locations do not get mixed with the surface runoff water. Provisions for diversion of storm water discharge drains shall be made to minimize leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions.e) Provisions for management of leachates including its collection and treatment should be made. Proper collection must be ensured for the leachate which is oozing out of the landfill site. All the leachate must be diverted to the leachate collection tanks.
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	<p>Item No. 20</p> <p>July 10, 2018</p> <p>ss</p>	<p>f) Storage capacity of the Leachate collection tank should be increased to handle the leachate generation during monsoon season. Leachate collection tank should be lined.</p> <p>g) In case of mixing of runoff water with leachate or solid waste, the entire mixed water shall be treated by the concerned authority.</p> <p>h) The end product compost should meet the standards prescribed under Fertilizer Control Order notified from time to time.</p> <p>i) Record should be maintained regarding the spray of Anti-odourant. And action plan should be prepared to mitigate the odour nuisance from the site.</p> <p>j) Proper records should be maintained for disposal of inert waste, recyclable materials and compost.</p> <p>k) Green belts should be developed all around the boundary of the landfill within the site plan.</p> <p>l) All the provisions of the Solid Waste Management Rules, 2016 should be complied.”</p> <p>4. An affidavit dated 23rd March, 2018 was filed on behalf of M/s. Eco-Green Energy Private Limited. It is stated that Concessionaire Agreement was signed on 14th August, 2017 for the project for segregation, collection and transportation and installation of Waste to Energy Plant. In the project for the municipal waste processing plant, requisite steps have been taken for disposal of the waste. In compliance with the inspection report dated 27th July, 2017 steps taken are shown in the Chart which is as follows:-</p>
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	<p style="text-align: center;">Item No. 20</p> <p style="text-align: center;">July 10, 2018</p> <p style="text-align: center;">ss</p>	<p>“ Recommendations made By CPCB vide report Dated 27.07.2017</p>	<p>Compliance by the Answering respondent</p>
	a)	Assess the total quantity of waste accumulated at dump site.	Total accumulated waste at Dump Site is around 2-2.5 million tons.
	b)	Prepare a plan for complete reclamation of waste in time bound manner.	<p><u>Phase I</u> Installation of RDF plant planned to be completed by March 2019. Thereafter, approx.. 1500TPD of waste shall be processed to produce RDF.RDF will be sold to Cement Plants and other end users.</p> <p><u>Phase II</u> 25 MW Power Plant is planned to be completed by June 20 19. Approx. 1200TPD of RDF . shall be consumed in operating the plant. This RDF will be produced from fresh and legacy waste. Accordingly in about 8-10 years, the complete accumulated waste shall be processed.</p>
	c)	Compound wall should be constructed immediately where compound wall is collapsed.	Compound wall wherever collapsed, has been constructed and work completed.
	d)	The storm water drain should be designed and constructed in such a way that the surface runoff water is diverted from the land filling site and leachate from solid waste locations do not get mixed with the surface runoff water. Provisions for diversion of storm water discharge drains shall be made to minimize the leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions.	<p>The storm water drainage system is designed as follows to avoid mixing of rain water with leachate</p> <ol style="list-style-type: none"> a. Drainage system for rain water outside the plant (from catchment area around the plant) is planned like a garland drain leading to discharge outside the plant and not entering the plant boundary. b. The drainage system for the areas where waste is not handled shall be separately constructed and water shall be used within the plant. c. The drainage system for the landfill and other areas where waste is handled, shall be in the form of arterial drains leading to common lined pits from where it will be pumped to the Leachate Treatment Plant
	e) f)	Provisions of management of leachate including its collection and Treatment should be made. Proper collection must be ensured for the leachate which is oozing out of the landfill site. All the leachate must be diverted to leachate collection tanks. Storage capacity of the Leachate collection tank	<p>In the landfill, sloped drains will be prepared all around to collect the leachate in leachate ponds in the landfill area. From leachate pond the leachate is pumped to the Leachate Treatment Plant (Under construction). Leachate collection tank shall be lined.</p> <p>Capacity of Leachate Collection & Equalization Tank is designed considering the monsoon season.</p> <p>The leachate will be treated in the Leachate Treatment Plant which is already under construction and proposed to be commissioned by April 18. During construction period of the</p>

<p>Item No. 20</p> <p>July 10, 2018</p> <p>ss</p>		<p>should be increased to handle the leachate generation during the monsoon season. Leachate collection tank should be lined.</p>	<p>Waste to Energy Plant, the treated leachate will be released to the nearest sewerage drain. The treated leachate will meet the standards specified in Schedule-II of SWM Rules 2016.</p> <p>After the start of Waste to Energy plant, the treated leachate will be recycled and utilized for the plant consumption.</p>
	g)	<p>In case of mixing of runoff water with leachate or solid waste, the entire mixed water should be treated by the concerned authority.</p>	<p>In case of mixing of runoff water with leachate or waste the complete runoff water is planned to be collected in a separate tank and treated in the Leachate Treatment Plant.</p>
	h)	<p>The end product compost should meet the standards prescribed under Fertilizer Control Order notified from time to time.</p>	<p>Compliance will be ensured.</p>
	i)	<p>Record should be maintained regarding the spraying of anti-odorant. And action plan should be prepared to mitigate the odor nuisance from the site.</p>	<p>Spraying of anti-odorant is continued ever since Ecogreen Energy has taken over management of Bandhwari site i.e. 21/09/2017 and record is being maintained.</p>
	l)	<p>Proper record should be maintained for disposal of inert waste, recyclable material and compost.</p>	<p>After our processing plant starts functioning, proper records for disposal of inert waste, recyclable materials and compost shall be maintained.</p>
	m)	<p>Green belt should be developed all around the boundary of the landfill within the site plan.</p>	<p>Compliance will be ensured.</p>
	n)	<p>All the provision of the Solid Waste Management Rules 2016 should be complied.</p>	<p>Compliance will be ensured.</p>
		<p>BIO MINING</p>	<p>Following steps shall be undertaken for Bio Mining:</p> <ul style="list-style-type: none"> • Spraying of Microbial Culture to reduce the volume of old waste • Bio-mining of the digested waste for pre-processing through Hydraulic Excavator, Bull Dozers, Dumper Trucks. • Pre-processing the waste through Ballistic Separators based on density and sieve size • Recovering combustibles (RDF) from old waste by density separation. • Separation of inert & construction waste and disposing into identified first cell of landfill. • Selling of the RDF to nearby industries/use for Waste to energy plant. • Filling of low lying areas with soil separated from old waste processing.”

	<p>Item No. 20</p> <p>July 10, 2018</p> <p>ss</p>	<p>5. The applicant vide its Rejoinder dated 09th July, 2018 states that though the project agreement has been signed but the issues in the report dated 27th July, 2018 have not been addressed. It has not been ensured that the Bhandwari Plant and Landfill site do not turn into an ecological disaster for the ecologically fragile Aravalli forests. Reference has been to an article dated 29th June, 2018 published in Hindustan Times to the effect that the waste was already lying at the landfill site and the leachate contamination has become a serious health hazard for the local communities residing in the vicinity. It is submitted that the Concessionaire must take immediate steps to manage the legacy waste and other waste in the first instance. We do not find any reason not to accept this prayer that the Concessionaire must take steps to manage the legacy waste and leachate, the suggestion made by the CPCB in its inspection report dated 27th July, 2017. The Concessionaire must also address the issues referred in this report dated 29th June, 2018 published in Hindustan Times with regard to Bandhwari Municipal Solid Waste landfill. This will also be the responsibility of the State of Haryana as the Concessionaire is merely an agency created by the State to carry out its responsibility.</p> <p>6. The Original Application No. 415 of 2015 is accordingly disposed of.</p> <p>7. Let an affidavit of compliance of the above directions be filed within four weeks. The Concessionaire will also implement the segregation of the municipal solid waste at source as per rules.</p>
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