



उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड  
UTTAR PRADESH POLLUTION CONTROL BOARD

पत्रांक संख्या-492849/सी-5/112/O.P.N.-08/2023

दिनांक 28/04/2023  
पंजीकृत

From,

Chief Environmental Officer,  
Uttar Pradesh Pollution Control Board,  
Lucknow.

To,

The Registrar General,  
Principal Bench,  
Hon'ble National Green Tribunal,  
Copernicus Marg, New Delhi-110001

**Sub: Regrading Joint Inspection report in compliance of Order dated 21.02.2023 in O.A. no. 08/2023 Mukesh Kumar Tiwari V/s State of UP & Ors.**

Sir,

In compliance of the direction passed by Hon'ble National Green Tribunal dated 21.02.2023 on matter mentioned above, the Joint Inspection Reprot is hereby attached with a request to put up before Hon'ble National Green Tribunal for kind perusal.

**Enclosure: As above.**

Your's Sincerely,

(Dr. Ram Karan)

**Chief Environmental Officer,  
Circle-5**

**Copy to:**

1. Member Secretary, UPPCB, Lucknow.
2. Law Officer-I, UPPCB, Lucknow.
3. Regional Officer, UPPCB, Lucknow.

**Chief Environmental Officer,  
Circle-5**

**JOINT INSPECTION REPORT OF MUNICIPAL SOLID WASTE  
PROCESSING FACILITY, SHIVRI, LUCKNOW, U. P.**

**IN THE MATTER OF**

**Mukesh Kumar Tiwari Vs State of U. P. (O. A. No. 08 of 2023)**

**A. Background:**

Hon'ble NGT, Principal Bench, New Delhi has passed order on dated 21.02.2023 for joint inspection of Municipal Solid Waste Processing Facility, Shivri, Lucknow, U. P. in the matter of Mukesh Kumar Tiwari Vs State of U. P. (O. A. No. 08 of 2023). The relevant portion of the order is as below: -

*"...4. In our view, a substantial question relating to environment due to implementation of Scheduled Enactments under NGT Act, 2010 has arisen but before taking any further action in the matter, we find it appropriate to obtain a factual report for the purpose whereof, we constitute a joint Committee comprising CPCB, State PCB, District Magistrate, Lucknow and Municipal Commissioner, Lucknow Nagar Nigam who shall visit the site, collect relevant information on the status of compliance of MSW Rules which may include gap in waste processing and remediation of legacy waste and submit a factual and action taken, if any, report within two months by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.*

*5. State PCB will be nodal agency for coordination and compliance.*

*6. List for further consideration on 02.05.2023 ...."*

Copy of reference NGT order is annexed as **Annexure-1**.

Subsequently, inspection of Municipal Solid Waste Processing Facility, Shivri, Lucknow, U. P. was carried out by a joint team comprising officials from District Administration, Lucknow Municipal Corporation, Lucknow, CPCB, Regional Directorate, Lucknow and UPPCB, Regional Office, Lucknow on 13.04.2023. The salient details, observation and recommendation based on the inspection is summarized as below:





**B. Salient Details:**

1.	Population	36 lacs
2.	Solid Waste Generation (MT/d)	2250 including C & D Waste (approx.250 MT)
3.	Solid Waste Collection (MT/d)	2250 including C & D Waste (approx.250 MT)
4.	Gap	Nil
5.	Reason for gap	N.A.
6.	MSW Facility exist	Yes
7.	Name of Facility	Municipal Solid Waste Management Plant
8.	Location	Mohan Road, Pankhera Chauraha, Shivri, Village, Lucknow, Uttar Pradesh
9.	Operated By	Municipal Corporation, Lucknow
10.	Contact Person	Sh. Sanjeev Pradhan (Environmental Engineer)
11.	Contact Detail	+91 8726796666
12.	Period of commencement	8 years
13.	Number of employees	145
A	Managerial	8
B	Operations/Support staff	47
14.	Processing Capacity (MT/d)	1200 TPD (one shift i.e. 8 hr.)
15.	Capacity utilization (Actual Qty of waste received, MT/d)	2250 TPD
16.	Area of the Project Site	19 Hectare
17.	Scope of work	Processing and Disposal of MSW
18.	<u>Door-to-door waste collection</u>	
A	Total number of wards in city	110



B	Number of wards catered	110
19	<b>Legacy waste exist</b>	Yes; Appx. Qty. 18.49 lac MT
A	Plans for processing legacy waste	Plan prepared and sanctioned. Tender under process.
20	<b>Secondary Waste Collection</b>	
A	Total no. of transfer stations (PCTS) established in city	64 PCTS (Primary Compactor and Transfer Station) at 59 Locations
B	Number PCTS operational	59
21.	<b>Transportation of MSW</b>	
A	Exclusively by the facility (MT/d)	--
B	By Municipal Corporation (MT/d)	2250 MT/D including C & D Waste
C	Number of Facility owned vehicles	--
D	GPS enabled	Yes
E	Number of other vehicles (Municipal Authority)	66
22.	<b>Gravity/Size screening</b>	
A	No. of trommels	8
B	Nos. operational	8
C	No. of Ballast Separators	2
D	Nos. operational	2
23	<b>Composting</b>	
A	Separate composting platform	Yes
B	Compost Cycle (Period)	21 days
C	Compost Quality Checked (With reference to FCO)	Yes
D	Compost Quality Report	Not available

*[Handwritten signatures and initials in blue ink]*



E	Quantity Generated	180 (MT/D);
F	Quantity Sold/lifted	180 MT/D
G	Details of Users	Local farmers
24.	<b>Refuse Derived Fuel (RDF)</b>	
A	Quantity of RDF generated	270 MT/D
B	RDF Quantity used/sold	RDF is lying in the plant
C	Details of RDF users (if sold)	Dew Resource Management, Muzaffarnagar, UP
25.	<b>Waste to Energy Plant</b>	
A	Plant exists / not exist / proposed	Not Exist
	(If proposed, mention expected date of installation)	
B	Capacity	NA
C	Operational status	NA
D	Air Pollution Control measures	NA
E	Stack height	N.A.
F	Monitoring platform exists	N.A.
G	Stack emission monitoring system	N.A.
H	Power Purchase Agreement	N. A.
I	Cost of Units levied/paid	NA
26.	<b>Leachate Treatment Plant (LTP)</b>	
A	Capacity	Not available
B	Treatment technology	N.A.

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C	Unit detail	N.A.
D	Status of operation	N.A.
E	Treated effluent characteristics	NA
F	Disposal of Leachate	Proposed to collect in Leachate collection tank
27.	<b>Landfill Facility</b>	
A	Area / Size	26244 M <sup>2</sup>
B	Liner detail	1.5mm thick HDPE(Partially)
C	Leachate management	Not installed
28.	<b>Status of Consent and Authorization</b>	
A	Consent	Applied (Under Consideration)
B	Consent Validity	NA
C	Authorization	Obtained
D	Authorization validity	Valid up to 16.03.2027
29.	<b>Tipping Fee</b>	
A	Fee Fixation criteria	Criteria is based on the manpower, resources engaged and distance of the MSW plant from the city.
B	Unit Charge (Per MT)	INR 1604 Per MT
C	Status of dues if any	NIL

### C. Observations:

1. The MSW Processing Plant (Herein after referred as "The plant") is located at Mohan Road, Pankhera Chauraha, Shivri Village, Lucknow, Uttar Pradesh having processing capacity of 1200 TPD of solid waste. It is spread over an area of approx. 19 Hectare.
2. The plant is established on 13.10.2010. Earlier, the plant is operated by M/s Jyoti Envirotech, till 21.03.2017. But, due to operational issue, work for solid waste management of Lucknow City has been assigned to M/s Eco-green Energy Lucknow Pvt.

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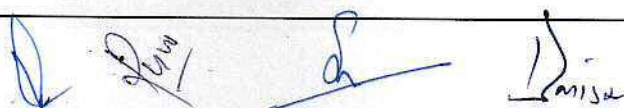


Ltd. Lucknow. Municipal Corporation, (hereinafter referred as "LMC") takeover the plant from M/s Eco-green Energy Lucknow Pvt. Ltd. on 01.04.2023 due to poor operation of processing plant and violation of agreement.

3. LMC is presently carrying out following work for management of solid waste:
  - i. Door-to-Door collection of Municipal Solid Waste (MSW)
  - ii. Secondary Waste collection from designated points
  - iii. Transportation of MSW from secondary collection points to Process Plant
  - iv. O&M of process plant to produce Compost & RDF
4. Lucknow city is having 110 wards, which is divided into 08 zone. The avg. waste generation of the city as reported is approx. 2250 TPD including C&D waste as against processing capacity of 1200 TPD (one shift i.e. 08 hr.) for MSW & 100 TPD for C&D waste. Presently, solid waste processing plant is operated in one shift.
5. Waste is collected door to door and transported to the plant directly or through transfer station. Lucknow city has three transfer station located at Gwari, Malpur and Priyadarshan Colony. Presently, only 01 Secondary Transfer Station at Gwari, which cater Zone-4 is operational. Remaining two Secondary transfer station at Malpur and Priyadarshan Colony is closed. As informed, door to door waste collection of waste is only 60% in lucknow city.
6. As reported, GPS system has been installed in the vehicles used for transportation of Solid Waste to the facility.
7. The plant has installed 64 PCTS (Portable Compact transfer Station) for solid waste compaction. Presently, only 59 PCTS is operational.
8. The operational details of the plant are summarized as below:
  - i. Waste Processing at the Shivri facility starts with collection of waste at Tipping Floor. Waste is mechanically lifted from Tipping Floor and subjected to Screening/pre-sorting through Trommel (02 nos. with capacity: 30 MT/hr and 45 MT/hr) and Ballast Separators (02 nos. with capacity 35 MT/hr each). Trommel segregates waste into two streams (< 100 mm size as compostable waste and > 100 mm size identified as RDF). The Ballast Separators primarily segregate inert material (stone, grits, cement blocks and ballast etc.) from the waste stream and further segregates waste into two streams (< 100 mm size as



- compostable waste and > 100 mm size identified as RDF). During inspection, one Trommel was found not operational. Mechanical lifting system was also not operational. Presently, waste is lifted through JCB.
- ii. The (>100 mm size) waste identified as RDF is kept in plant. Presently, RDF is not sending to any processing plant. The potential user of RDF is cement plant for co-processing.
  - iii. Compostable waste (<100 mm) is further processed in bio-compost yard with compost lifecycle of 21 days. After achieving stabilization through bio-composting, the stabilized (compostable) waste is subjected to screening through a series of Trommels (02 nos. of trammel with capacity 15 TPH each with screen size 20 mm). During inspection, both trommel were operational.
  - iv. The under-pass material from Trammels is collected in shed and further fed to Trommel (03 nos. with capacity 10 TPH with 4 mm screen size). During inspection, trommels were operational.
9. During the visit, gap in treatment capacity and generation is observed. It is informed by the LMC, proposal for increasing the capacity of processing plant as well as running hour of processing plant to treat all incoming fresh waste is under active consideration.
  10. During inspection, huge quantity of legacy waste was found dumped in the plant. It is reported that approx. 18.49 lac ton of legacy waste is lying on the plant. LMC has installed legacy waste treatment plant with processing capacity of 100 TPH. It is informed that 03 screening plant with each capacity 30 TPH is proposed to be installed for legacy waste treatment by 25.04.2023.
  11. The plant has Secure Land Fill (SLF) of area approx. 64745.29 Sq. M. During inspection, it is observed that solid waste was dumped on SLF. It has been observed that SLF is not made as per CPCB guideline with respect of lining, leachate collection system etc.
  12. The plant does not have proper leachate collection and treatment system. Leachate was found spread on the floor in the plant. LMC has installed 03 leachate collection tank and another one leachate collection take is proposed to install.
  13. During inspection, leachate is found discharging through storm water drain to the adjacent nalla. Nalla is observed filled with leachate of the plant. It is informed by LMC representative, due to recent rain leachate is overflowing in to nalla. Sample of leachate





was collected, which is seen into Narwa nalla. Nalla meeting into the Sai River. Analysis carried by CPCB RD Lucknow & results is tabulated as under:

Sampling locations	Parameters								
	pH	TSS	TDS	BOD	COD	Amm., Nitrogen	Fluoride	Chloride	Phenol
Leachate	8.57	141	8707	740	2980	28.1	2.88	2052	0.994
Standard for Treated leachate quality as per SWM Rule, 2016	5.5-9.0	100	2100	30	250	50	2.0	1000	1.0

*Heavy metals results are under process in lab.*

14. It is evident from the result that the plant is discharging highly polluted effluent into nalla.
15. It is also informed that drain leading to nalla has been closed and leachate will be collected in leachate collection tank and it will be sent to STP for further treatment in future.
16. LMC is also proposed to installed leachate treatment plant. Leachate is proposed to collect and send to nearby STP for treatment till installation and commissioning of leachate treatment plant.
17. It is also informed that LMC has ring fenced budget of Rs. 96 crores for legacy waste treatment.
18. Ground water samples were collected from borewell installed in the plant and carcass plant to check the quality of ground water. Analysis results are presented below:

*[Handwritten signatures and initials]*

Parameters	Unit	Borewell within the plant	Borewell within the carcass plant	Standards as per 10500:2012, Edition 2.2(2003-09) Desirable limit (mg/l except for pH)
pH	--	7.54	7.59	6.5-8.5
TDS	mg/l	366	372	500
Nitrate	mg/l	BDL (<2.2)	<0.5	45
Chloride	mg/l	7.96	7.77	250
Sulphate	mg/l	BDL (< 2.0)	5.89	200
Total Hardness	mg/l	224	236	300
Phenol	mg/l	BDL (< 0.1)	BDL (< 0.1)	0.001
COD	mg/l	BDL (< 5)	BDL (< 5)	--
Total Coliform	MPN/100 ml	$1.3 \times 10^3$	<1.8	--
F- Coliform	MPN/100 ml	$1.3 \times 10^2$	<1.8	--

*Heavy metals are under process in lab.*

19. It is evident from above analysis results that ground water inside plant is contaminated with Total Coliform and F- Coliform due to indiscriminate storage of unprocessed solid waste by M/s Eco-green Energy Lucknow Pvt. Ltd.

#### **D. Action Taken-**

1. U.P. Pollution Control Board has earlier imposed Environment Compensation against Nagar Nigam Lucknow Rs. 144071000/- vide letter Number G-3334/C-5/MSW-1/2020, dated 27-07-2020.

*[Handwritten signatures and initials]*



2. U.P. Pollution Control Board has imposed Environment Compensation against M/s Eco Green Energy Pvt. Village- Shivri, Mohaan, Lucknow Rs. 25, 3271000 /- vide letter Number H-87842/C-5/L/MSW-1/2023, dated 27-01-2023.
3. U.P. Pollution Control Board has imposed Environment Compensation against M/s Eco Green Energy Pvt. Village- Shivri, Mohaan, Lucknow, Rs. 17, 2071000 /- vide letter Number H-90293/C-5/MSW-1/2023, dated 04-03-2023.

### **E. Recommendations:**



It is evident from above observations and analysis results of samples collected, the M/s Eco-green Energy Lucknow Pvt. Ltd. (agency was engaged by Municipal Corporation, Lucknow for collection, transportation, processing and disposal of solid waste) has not processed solid waste and kept stored inside plant as well as in Secure Landfill (SLF), consequently ground water got contaminated. Leachate found discharged into nalla, which is now being further lifted by LMC and send to STP Daulat Ganj (56 MLD) for treatment. LMC should prepare earliest Time bound Action plan with PERT chart to comply with following:

1. The plant should be operated with valid consent from Competent Authority.
2. Solid Waste processing plan should be made operational optimally. All units of the processing plant should be properly operated. Capacity of solid waste processing plant should be either increased or working hours should be increased considering gap in solid waste generation (2250 TPD including C&D waste) and treatment capacity (1200 TPD + 100 TPD C&D waste) after obtaining Environment Clearance (EC) & CTE from competent authority.
3. LMC should expedite processing of legacy waste (approx. 18.49 lac MT) dumped inside plant area as well as at SLF. Legacy waste treatment plant with adequate capacity should be installed.
4. LMC should increase door to door collection by 100% against 60%.
5. Proper Leachate collection and treatment system should be installed in the plant.
6. Groundwater monitoring network should be developed in the facility and to have constant watch over the groundwater quality and prevent the contamination.
7. LMC should provide adequate green belt around the processing plant.

*[Handwritten signatures and initials]*

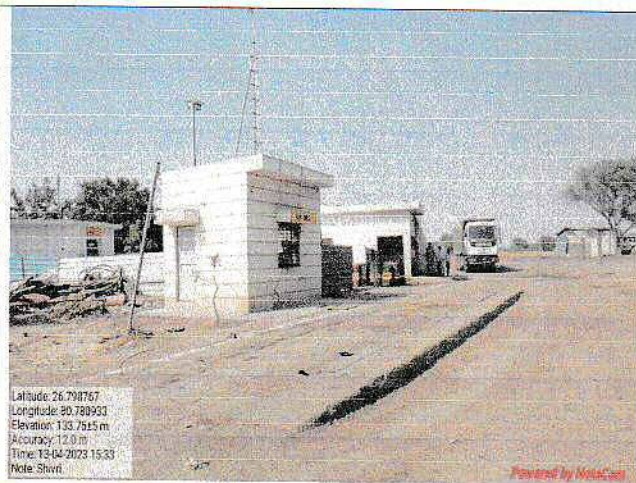
8. SLF should be constructed appropriately in consideration of the CPCB guidelines.
9. LMC shall insure the compliance of different provision of Solid Waste Management Rules, 2016 and Construction and Demolition Waste management Rules, 2016 and particularly disposal of different fraction of solid waste viz. inert, RDF, compost, recyclable material, C & D Waste etc.
10. Environment compensation (EC) imposed against Nagar Nigam Lucknow & M/s Eco Green Energy Pvt. Village- Shivri, Mohaan, Lucknow, should be deposited early to State board.

**Inspection Team:**

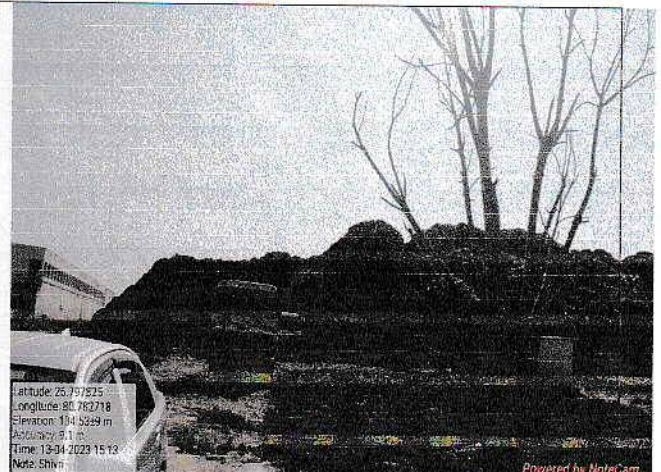
Sr. No.	Name of Inspecting Officers	Designation	Signature
1	Bipin Kumar Mishra	Additional District Magistrate (E), Lucknow	
2	Runa Oraon	Sc. 'D', CPCB, Regional Directorate, Lucknow	
3	Sanjeev Pradhan, Environmental Engineer,	Nagar Nigam, Lucknow	
4	Vinod Kumar	Assistant Environmental Engineer, Regional Office, U.P. Pollution Control Board, Lucknow.	



**Photo Gallery of Municipal Solid Waste Processing Plant, Shivri, Lucknow in the matter of Mukesh Kumar Tiwari Vs State of U. P. (O. A. No. 08 of 2023)**



**Pic. (01) Weight Bridge at MSW Facility Shivri**



**Pic. (02) Windrow Formation**



**Pic. (03) Broken Waste Processing Shed**



**Pic. (04) Screening plant**

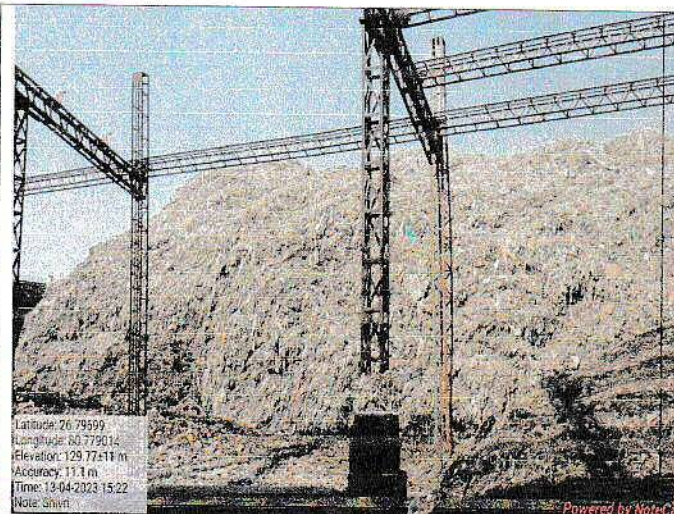


**Pic. (05) 4 mm Trommel**

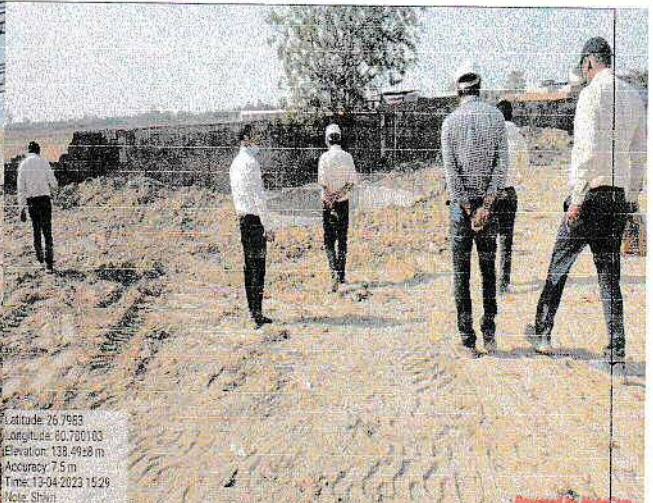


**Pic. (06) Leachate in waste processing area**

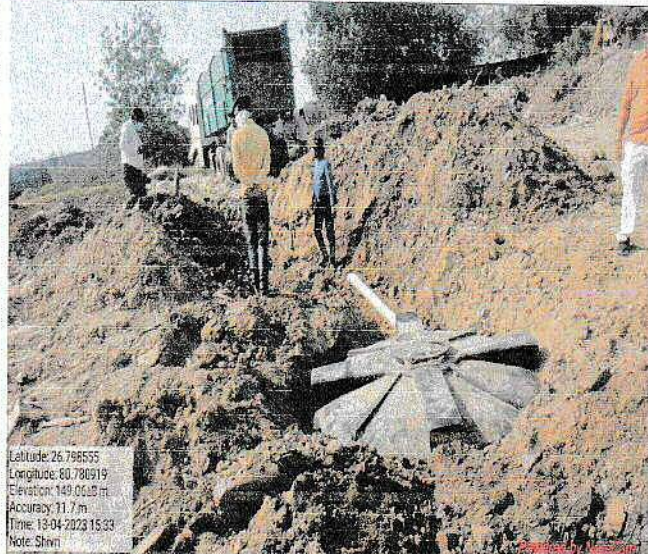




**Pic. (07) Legacy Waste and broken shed**



**Pic. (08) Construction of Leachate Storage tank**



**Pic. (09) Installation of Temporary Leachate storage tank**



**Pic. (10) Legacy waste processing unit**



**Pic. (11) Storm water drain filled with Leachate**



**Pic. (12) Carcass Plant at Shivri**



Item No. 15

Court No. 2

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

Original Application No. 08/2023

Mukesh Kumar Tiwari

Applicant

Versus

State of U.P.

Respondent

Date of hearing: 21.02.2023

**CORAM:****HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER  
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER****Application is registered based on a complaint received by post****ORDER**

1. This original application under Sections 14 and 15 of National Green Tribunal Act, 2010 (hereinafter referred to as 'NGT Act, 2010') has been registered on a letter petition dated 12.08.2022 received from Shri Mukesh Kumar Tiwari son of Shri Harish Chandra Tiwari, resident of B-105, Himcity Part-1, Chinhath Lucknow, Uttar Pradesh.

2. Grievance is that at Lucknow about 2000 MT of solid waste is generated everyday and its collection, processing and disposal is responsibility of Lucknow Nagar Nigam which has sublet to M/s. Ecogreen Energy Lucknow Pvt. Ltd., a private company, but the said company is neither collecting garbage from residences properly nor scientifically handling, managing and disposing the same. Instead it has dumped solid waste at different places creating garbage hillocks at different places which

is causing huge pollution by emanating bad odour and otherwise causing pollution in the city.

3. Tribunal, vide order dated 13.02.2022 in OA No. 654/2022, *Priyadarshini Colony D, residence Welfare Society vs. State of Uttar Pradesh & Ors.*, while dealing with grievance regarding shifting the dumping zone and garbage lying on the dumping site at Bandha Road, Faizullaganj, Priyadarshini Colony, Sector-D, Lucknow, observed as follows:

*"14. ... Further, in para 13 of the order, precise information was sought on quantum of waste generation, quantity of waste processed and remediation of legacy waste site. However, no information is furnished. This shows lack of sincerity on the part of the Corporation. Violations are acknowledged in the form of foul smell, blockage of drains, leachate discharge and piling of garbage at transfer stations even though under the Rules, the garbage has to go to end destinations like composting centres, MRF, waste to energy plants, integrated waste management plants. Needless to say such failure causes immense hardship to citizens and generates methane gas which leads to climate change.*

*15. Accordingly, while directing expeditious compliance of norms in managing the waste for acknowledged violations for long time and which are serious, we fix the interim compensation of Rs. 10 crores against the Corporation on polluter pays principle which may be deposited with the State PCB within one month but positively before 31.03.2023, which will be the personal responsibility of Commissioner, Lucknow Municipal Corporation. The interim compensation will be over and above the compensation assessed by the State PCB. The amount may be utilized for restoration of environment in accordance with the District Environment Plan of the District associating the District Magistrate. If there is a failure in deposit, the Commissioner, Lucknow Municipal Corporation will not be entitled to draw salary after 01.04.2023.*

*Action taken report with status of compliance and details of waste generated and processed as on 30.04.2023 be filed by 15.05.2023 by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.*

*List for further consideration on 23.05.2023."*

4. In our view, a substantial question relating to environment due to implementation of Scheduled Enactments under NGT Act, 2010 has arisen but before taking any further action in the matter, we find it appropriate to obtain a factual report for the purpose whereof, we constitute a joint



Committee comprising CPCB, State PCB, District Magistrate, Lucknow and Municipal Commissioner, Lucknow Nagar Nigam who shall visit the site, collect relevant information on the status of compliance of MSW Rules which may include gap in waste processing and remediation of legacy waste and submit a factual and action taken, if any, report within two months by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.

5. State PCB will be nodal agency for coordination and compliance.
6. List for further consideration on 02.05.2023.
7. A copy of this order, alongwith copy of complaint, be forwarded to CPCB, State PCB, District Magistrate, Lucknow and Municipal Commissioner, Lucknow Nagar Nigam by e-mail for compliance.

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

February 21, 2023  
Original Application No. 08/2023  
DV