

29.7.15
SIKKIM

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, NEW DELHI
ORIGINAL APPLICATION NO. 199 OF 2014

IN THE MATTER OF:

Almitra H. Patel & Anr.

...Applicants

-versus-

Union of India & Ors.

.... Respondents

INDEX

<u>SL. NO</u>	<u>PARTICULARS</u>	<u>PAGES</u>
1.	Affidavit on behalf of State of Sikkim	1-4

Filed on: 29.07.2015

Filed by:

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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, NEW DELHI
ORIGINAL APPLICATION NO. 199 OF 2014

IN THE MATTER OF:

Amrita H. Patel & Anr.

...Applicants

-versus-

Union of India & Ors.

.... Respondents

AFFIDAVIT ON BEHALF OF STATE OF SIKKIM

I, Ganzey Tshering Bhutia son of Late Sonam Norbu Bhutia, aged 56 years, Principal Chief Engineer cum Secretary, Urban Development and Housing Department, Government of Sikkim, Sikkim, do hereby solemnly affirm and state as under:

1. That the present affidavit is being filed pursuant to order dated 13.07.2015 passed by this Hon'ble Tribunal directing the Secretary, Urban Development Department of the State to file affidavit with regard to collection, storage and disposal of Municipal Solid Waste in the entire state and further, to clarify whether the MSW disposal plant either RDF or Waste to Energy or any other plant have been provided in the State or is in the proposal stage in that regard.
2. That in the answering State, there are seven Urban Local Bodies which are as follows:
 - i. Gangtok Municipal Corporation
 - ii. Rangpo Nagar Panchayat
 - iii. Singtam Nagar Panchayat
 - iv. Mangan Nagar Panchayat
 - v. Gyalshing Nagar Panchayat
 - vi. Jorethang Nagar Panchayat



vii. Namchi Municipal Council



3. That State of Sikkim, being a mountainous state, has a very rugged topography which makes door to door collection of the municipal solid waste difficult. Door to door collection of municipal solid waste is being carried out by the waste pick up vans in most of the wards in the urban areas. However, the collection of waste from the inaccessible areas is being done by back packers manually up to the road wherefrom the pick up vans collect the waste. Due to lack accessibility, municipal solid waste from very remotes area is difficult to collect and due to the said reason 100% door to door collection has not been attained. The vans are specially designed as covered waste collection vehicles that transport 500-600 kgs of waste.
4. After collecting the waste, the waste which could be recycled, is segregated from the rest of the waste and sent outside the State for recycling. Rest of the waste after segregating recyclable waste is transported to the landfill sites at Martam, which caters to North and East Districts and at Shipchu, which caters to South and West Districts respectively.
5. Further, a compost plant designed to handle waste up to 50 Metric Tonnes has been proposed at the Martam Landfill site, East District under the State Investment Program Management and Implementation Unit (CIPMIU) Project. It covers the entire segregated organic waste generated in Gangtok and the neighboring areas. This Compost Plant comprised of the following:

- i. New Compost Plant



- ii. Segregation Centre for Dry waste
- iii. Compactor Equipment
- iv. Plastic Waste Recycling Plant
- v. Other associated civil infrastructure

Further details of the above plant are as follows:


Name of the Work	Design and Installation of 50 TPD Mechanical Compost Plant, Commissioning and Trial Run, Refurbishment of existing composting shed and associated civil works, compacting and bailing machineries
Type of Contract	LCB – Turnkey
Cost	Rs.23.22 Million
Construction Period	12 months

SWM Infrastructure	
Civil Works	Rs. 66,21,784/-
Supplying and erection of new mechanical compost plant of capacity 50 Tons/day	Rs. 1,32,49,660/-
Compactor Equipment for bailing of paper and plastic	Rs. 4,57,955/-
Supply and erection of twin shaft shredder	Rs. 28,90,220/-
Total	Rs. 2,32,19,619/-

The invitation for bids- National Competitive Bidding (Manual Bidding) to execute the above work was advertised vide R.O No. 24/IPR/PUB/Classi/15-16 dated 21.04.15 through the Information and Public Relations Department, Government of Sikkim. Currently, the Technical bid has been finalized, however, the financial bid is under process and scheduled to be done by August'15.

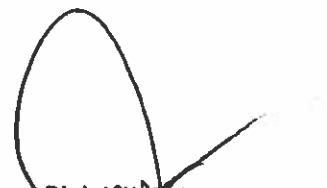


6. That since the quantum of waste being generated in the entire answering State is very less, i.e., approximately 70 tonnes per day, no Refuse Derived Fuel (RDF) or Waste to Energy Plants have been installed as it would not be economically viable. However, Biogas plants are proposed to be installed at institutional and community levels. A pilot project on the same is being taken up by the Urban Development & Housing Department under the Swachh Bharat Mission (Urban) during 2015-16, the proposal for the same has been moved for approval of the Government.


DEPONENT
 Principal Civil Engineer-CM1
 Urban Development & Housing Deptt.
 Government of Sikkim
 Gangtok

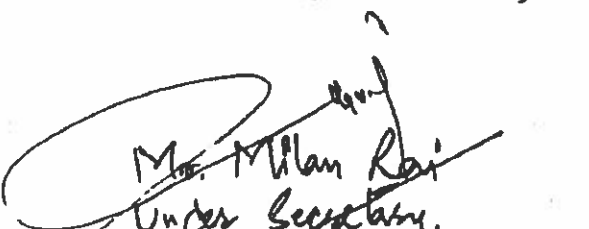
VERIFICATION:

I, Ganzey Tshering Bhutia, the above named deponent, do hereby verify that the contents of paras 1 to 6 of the above affidavit are true and correct to the best of my knowledge and belief as derived from the records, no part thereof is false and nothing material has been concealed therefrom.


 Principal Civil Engineer-cum-Secretary
 Urban Development & Housing Deptt.
 Government of Sikkim
 Gangtok

Verified at Gangtok on the 25th day of July, 2015

IDENTIFIED BY;


 Mr. Milan Rai
 Under Secretary,
 UD & HD, Govt. of Sikkim.

Solemnly affirmed before me on this
 the 25th day of July 2015 by
 Shri/Smt/MISS Ganzey Tshering Bhutia
 who is known/identified by Smt/Smt/
Ms. Milan Rai / UD & HD,
Govt. of Sikkim.


 25/7/15
ARUNA CHHETRI
 OATH COMMISSIONER
 HIGH COURT OF SIKKIM

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, NEW DELHI
ORIGINAL APPLICATION NO. 199 OF 2004

IN THE MATTER OF :

Almitra H. Patel & Anr. Applicants

Versus

Union of India & Ors. Respondents

AFFIDAVIT ON BEHALF OF STATE OF SIKKIM

I, C. S. Rao, Chief Conservator of Forests, Chief Wildlife Warden, Department of Forest, Environment and Wildlife Management, Government of Sikkim, Gangtok, do hereby solemnly affirm and state as under :-

1. That the present affidavit is being filed pursuant to the order dated 13.07.2015 passed by this Hon'ble Tribunal directing the Secretary, Urban Development and Secretary Environment to file affidavits with regard to collection, storage and disposal of Municipal Solid Waste in the entire State and further, to clarify whether the MSW disposal plant either RDF or waste to energy or any other plan has been provided in the State or is in proposal stage in that regard. It is stated that as Dr. Thomas Chandy, Secretary Forests, Environment and Wildlife Management Department is abroad on official work, the present affidavit is being affirmed by me as I am In-charge of the said Department at present.

2. That all the matters pertaining to the collection, segregation, transportation and disposal of solid waste within the answering State is

looked after by the Urban Development and Housing Department, Government of Sikkim.



3. That the State Pollution Control Board is regularly monitoring the activities of the Urban Development and Housing Department, Government of Sikkim with regard to municipal solid waste management.

4. That the municipal solid waste collected from North and East Districts of the State is stored in the disposal facility at Martam in shed under GIC roof so as to minimize chances of leaching and rain water entering the river system as drainage.

5. As regards, the disposal facility catering to South and West Districts of Sikkimat Sipsoo the Urban Development & Housing Department, has been advised to take up the work of construction of shed with GIC sheets in their storage facility in order to prevent rain water from entering the waste and to install waste management system.

6. That under the Municipal Solid Waste (Management and Handling) Rules 2000 the State Pollution Control Board is the prescribed Authority for granting authorization for setting up of waste processing and disposal and Guidelines being No. 430/SPCB/819/MSW/2014 have been issued on 22.09.2014 by the State Pollution Control Board, Sikkim for being complied with in the collection and disposal of solid waste in the State. A true copy of Guidelines dated 22.09.2014 are annexed herewith and is marked as **ANNEXURE P – 1.**



7. That the Urban Development & Housing Department, have initiated the distribution of bins for at source segregation of municipal solid waste for proper waste management as till date the system of segregation has not been successful as mixed waste are being received and collected. The Urban Development & Housing Department in coordination with the State Pollution Control Board have been proactively engaged in generation of environmental awareness for at source segregation of municipal solid waste.

8. That a compost plant to handle solid waste upto 50 metric tonnes has been proposed at Martam Landfill site, East District under the State Investment Programme Management and implementation Unit (CIPMIU) Project and would cover the entire segregated organic waste generated in Gangtok and neighboring areas. The details of said project are already set out in the affidavit filed by the Secretary, UDHD before this Hon'ble Tribunal.



DEPONENT

VERIFICATION


I, C. S. Rao, the abovenamed deponent do hereby verify that the contents of paras 1 to 8 of the above affidavit are true to the best of my knowledge and belief as derived from the records, no part thereof is false and nothing material has been concealed therefrom

Verified at Gangtok on this the 1st day of August, 2015.


DEPONENT

JOINTLY BY

(Rita Sharma.)
Gangtok, E. Sikkim

Solemnly affirmed before me on this
..... day of by
Shri/Smt/Miss C. S. Rao, C.P.
of Gangtok, E. Sikkim
who is known and identified by
Shri/Smt/Miss Rita Sharma.
..... of
Gangtok, E. Sikkim.


Thimlay Dorjee Bhutia
Oath Commissioner
High Court of Sikkim

Phone 281015, 281913

Fax : 03592-281913

STATE POLLUTION CONTROL BOARD SIKKIM
DEPARTMENT OF FORESTS ENVIRONMENT & WILDLIFE
MANAGEMENT

GOVERNMENT OF SIKKIM

DEORALI – 737101

F. No. 430/SPCB 819/MSW/2014

dated 22.09.2014

GUIDELINES

1. Guidelines for covering of dumping yard at Martam. East Sikkim.
 1. Garbage on the river bank to be removed and it needs to be ensured that the garbage layer is above food level.
 2. Garbage layer needs to be compacted and slope of the garbage mound to be reduced to around 30-35 degrees to ensure stability.
 3. A barrier compacted soil layer (15 cm of clay/soil) just above the garbage layer with provision of vents to remove gases viz. methane, carbon-dioxide etc.
 4. Non-permeable lining system on top of 15cm soil layer.
 5. A barrier compacted soil layer (60cm of clay/soil) with permeability less than 1×10^{-7} cm/sec above non-permeable lining system.
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6. On top of compacted soil layer, there shall be a vegetative layer of 45 cm to support natural bushy plant / grass to minimize erosion.
7. Diversion of storm water drains shall be ensured with construction of proper drainage system to minimize leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions.
8. Planting of trees, shrubs on the periphery and barren areas at the site to reduce noise odor and to improve the air quality & aesthetics.
9. Construction of retaining wall along the river with a proper drainage system shall be completed at the earliest.

II. Guidelines for construction temporary trench for dumping of wastes:

1. Ground preparation work involving compaction of the soil.
2. On top of soil layer shall be a non-permeable lining system.
3. On top of lining system shall be gravel and sand layer of 15 cm housing pipes for leachate collection system (series of sloped terraces with leachate collection channel in between them).
4. On top of sand layer compacted wastes to be spread with daily cover of thin soil layer.

III. Deficiencies of the Municipal Waste Management & Treatment Facility (MSWFT) at Martam.

1. Non segregation of waste at Source
2. Absence of Waste reduction at source
3. Absence of community waste receptacle for recyclable items cardboard, plastics, news paper.
4. Lack of organized waste recycling channel.
5. Absence of community waster receptacle for items like used cell & battery (other than lead battery), broken glass & bulbs (CFL and tubelights), electrical and electronic wastes.
6. Non segregation during collection and transportation of waste
7. Commingled waste used for composting
8. Improper segregation / sorting approach at the MSWTF: instead of chain of segregation methods only density & size separation are adopted. Ideally segregation at MSWTF should have manual material recovery at the first stage followed by density separation and (also electrical & magnetic separation depending of waste composition) finally size separation using screens.
9. Unskilled and untrained manpower for composting process.

IV. Steps required for reviving the MSWTF

1. Massive awareness programme
 2. A specific day can be designated for collection of non-biodegradable wastes which will result in automatic segregation at source. Putrescible portion of the wastes i.e.
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biodegradable fraction needs to be collected daily to prevent stench and maintain hygienic conditions at home, however, non-biodegradable wastes can be stored in homes for longer period without any significant discomfort or health issues.

3. If community waste collection facilities are available then people can handover materials like discarded paper, corrugated paper boxes, plastic items, broken glasses, electronic items like used cell/ batteries, broken cell phones, e-wastes etc. to such facility eventually preventing such items from reaching dumping yard and significantly reducing the volumes of wastes at landfill sites.
 4. Establishment of Recyclable waste material collection facility.
 5. NGOs and local entrepreneur can be roped in to establish networks for channelization of recyclable materials; suitable incentives can be given to them to start up such enterprises.
 6. During transportation it has to be ensured that wastes don't get mixed together and fully covered.
 7. MSWTF should have material recovery section wherein manual recovery of items like paper, glass, metals, plastics are carried out followed by segregation using density separating machines, size separation using trammel/ screens.
 8. Proper maintenance of the segregating machines is required.
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9. Compositing of wastes needs to be carried out by trained personnel so that the compost meets the standard prescribed under the Municipal Solid Wastes (M&H) Rules, 2000.
10. Proper implementation of the Plastic Wastes (Management and Handling) Rules, 2011 and the Municipal Solid Wastes (Management and Handling) Rules, 2000.

Member Secretary,
State Pollution Control Board - Sikkim

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