Minutes of the 51st Meeting of State Level Task Force on Solid Waste Management for discussion on several issues of solid waste management

In the Chair :	Director, SUDA
Meeting Date :	14th March, 2023
Meeting Venue :	SUDA Conference Hall (2nd Floor)
Meeting Time :	12.00 Noon
Meeting Attendees :	

- List of Members and participants : Annexed

Director, State Urban Development Agency (SUDA) chaired the meeting.

At the outset, he welcomed all the members present and explained the discussion points of the meeting. A threadbare discussion was held regarding the agenda points and following decisions were taken :

1. It was observed that the Battery Operated Tipper (BOT) procured by Kolkata MC for primary collection of municipal solid waste is running in a successful manner. The agency that had supplied the BOT was invited before the Committee for presenting the know how of the BOT. After the presentation it was observed that:
   - ✓ The capacity of the BOT is 1 ton and only one person can operate this alongwith collection of municipal solid waste.
   - ✓ Coverage of household is much higher than the coverage through Pedal Tri-Cycle being operated in other ULBs.
   - ✓ 6 to 7 hours is required for charging the battery which may cover 120 KMs.
   - ✓ A dedicated charging station is required in some relevant spots of the ULB

   Now, the Committee suggested to take a pilot initiative for collection of dry waste (especially from market places and other places where generation of dry waste is much) by this type of vehicle in 3 ULBs within the KMA area.
2. The Committee noted that all the ULBs are ready to purchase Fuel Operated Tipper (FOT) for secondary transportation of municipal solid waste from 15th Finance Commission tied Grants through GeM Portal. The Committee realized that a standard specification shall be provided to all the ULBs for floating the tender through GeM Portal. As per decision of the Committee, Sri Subhasish Chattapadhyay, Chief Municipal Engineer (SWM), Kolkata MC and one of the Experts of the SLTF has vetted the specification which **is placed at Annexure-I**. The Committee recommended the same for further course of action.
3. The Committee noted that all the ULBs are ready to purchase Backhoe Loader for lifting solid waste at secondary transfer station/ secondary point of the ULB from 15th Finance Commission Grant through GeM Portal. The Committee realized that a standard specification shall be provided to all the ULBs for floating the tender through GeM Portal. As per decision of the Committee, Sri Subhasish Chattapadhyay, Chief Municipal Engineer (SWM), Kolkata MC and one of the Experts of the SLTF

has vetted the specification which **is placed at Annexure-II**. The Committee recommended the same for further course of action.

4. UD&MA Department has engaged Administrative Staff College of India (ASCI), Hyderabad for preparation of DPR on setting up of Waste to Energy Plant & Bio-CNG for Kolkata MC, Howrah MC and Bally Municipality. In this connection, a detailed Scope of Work was presented by the team of ASCI. The Committee noted that and requested to incorporate the suggestions of the Committee members and immediately start the field visit to the 3 ULBs to understand the ground reality.
5. In the light of the orders passed by the National Bench of the Hon'ble NGT in O.A. 606/2018 and in compliance with the Solid Waste Management Rules, 2016, the Committee recommends to execute the infrastructure development works at 54 ULBs for smooth progress of solid waste management projects. The site-wise list is placed at **Annexure-III** and made a part of the minutes of the meeting.
6. IIT Kharagpur made a presentation before the State Level Task Force on their understanding of the scope of work to prepare the Solid Waste Management Master Plan for the Districts of Purulia, Bankura, Paschim Medinipore, Jhargram and Paschim Bardhaman. The Committee further discussed on the scope of the Master Plan in the Districts mentioned and requested to IIT Kharagpur to submit a detailed proposal including commercial to the competent authority of KMDA.
7. NEERI made a presentation before the Additional Secretary & Additional Director, Joint Secretary, KMDA, Chief Engineer, Additional Chief Engineer & Superintending Engineer on their understanding of the scope of work to prepare the Solid Waste Management Master Plan for the Districts of Malda, Uttar Dinajpur, Dakshin Dinajpur, Jalpaiguri, Coochbehar, Darjeeling, Kalimpong and Alipurduar. Further discussion was held on the detailed scope of the Master Plan in the Districts mentioned and requested to NEERI to submit a detailed proposal including commercial to the competent authority of KMDA giving special priority to 4 Hill Towns of West Bengal.

With no other issue for discussion the meeting ended with vote of tanks to and from the chair.

(Supriya Ghosal)
Director, SUDA

Annexure-I

Technical Specification Tipper:

SL No.	Specification Parameters	Spec. Values that have been received	Spec. Values Suggested
1	Chassis Certification.		Mandatory
2	Type of TIPPER	Garbage Tipper	Garbage Tipper
3	Type of Fuel	Diesel -549	Diesel/CNG
4	Chassis Transmission System	Manual	Manual
5	Chassis Certification ARAI / VRDE / ICAT No.	ARAI	ARAI
6	Tipper Container capacity / Volume (Cubic meter)	3.2/3.3/3.0	2.5-3
7	Type of BIS MARKED Vehicle Tyre	Radial	Radial
8	At the time of supply of the equipment, the chassis should not be more than 6 months old.	Mentioned by the bidder	Tippier is to be built on the newly manufactured chassis, not more than six months old. Substantial document of chassis manufacturing date is to be submitted, if asked for.
9	Tipping Angle (Degree)	45/48	Min. 45
10	Type of TIPPER if other topper, please declare type of Tipper.	Not mandatory filed	
11	Type of Steering	Power operated	Power operated
12	Main Engine Aspiration	Turbo charged intercooled	Turbo charged intercooled
13	Make of Chassis	Mentioned by the bidder	Reputed make like TATA, Ashok Leyland, EICHER, Mahindra or equivalent.
14	Type of Chassis Frame	Conventional	Conventional
15	Vehicle Emission compliance	BS-VI	BS-VI
16	Max Engine Power BHP (BHP @rpm)	65/70, 69	Min. 65
17	No of Cylinder in Main Engine (Nos)	4/3	Min. 3
18	Category of Vehicle for which Chassis to be used	Light capacity commercial vehicle	Light capacity commercial vehicle
19	Type of Chassis	Chassis without facecoul/Chassis with facecoul	Chassis with facecoul
20	Fuel Consumption (declared by OEM as certified by Test Agency under Rule 115 of CMVR 1989) (Kmpl)	17.2/18/17.46	Min. 17 Kmpl
21	Speed, Max (Km/ Hr)	80	80

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22	Rated RPM at Max Engine Power	3200/4000/3300	3200-3300
23	Max Engine Torque (N-m @rpm)	195/140	Min. 170
24	Rated RPM at Max Engine Torque	1400.22/1800/2400	3200-3300
25	Fuel Tank Capacity (Ltr.)	45/38/40	Min. 40
26	Gradeability of Vehicle with load (%)	10.3/28.11/32.27	Min. 24
27	Ground Clearance (mm)	170/160/177	Min. 170
28	Wheel Base(mm)	3150/2380/2350	2350-2380
29	Kerb Weight (Kg)	1500/1100/2590	Max. 1100-1300
30	Gross Vehicle Weight (Kg)	2700/2565/2565	2550-2700
31	Number of Speed / Forward Gears	5	5
32	Turning Radius, Min (mm)	5500/5100/5250	5100-5850
33	Speed Governers / EUC	Yes	Yes
34	ABS Fitted	No/Yes	Optional
35	Front Vehicle Brake	DISC/ Disc brake	Disc brake
36	Rare Vehicle Brake	DRUM	Drum
37	Type of Clutch	Single plate dry/ single dry friction/ single dry plate	Single Plate Dry Clutch
38	Size of Front Tyres (mm)	195R 15LT/185 R14 8PR/185R14LT	185 R14 8PR or more
39	Size of Rear Tyres (mm)	195R 15LT/185 R14- 8PR/185R14LT	185 R14 8PR or more
40	Size of Wheel (mm)	15/355.6/355.6	14 inch and more
41	Tipper body Pivot length (mm)	2350/1546/1420	As per OEM
42	Tipper body Length (mm)	2460/2695/2820	Min. 2400
43	Tipper body Height (mm)	1100/1082/850	Min. 1000
44	Over all Height of Tipper from ground (mm)	2125/1801/1920	1900-2125
45	Body Plate Thickness (mm)	1.6/2	Min. 2
46	Main Frame Thickness (mm)	2/4/3	Min. 3
47	Hydraulic System	YES	Yes
48	Tipper Hydraulic Cylinder (Make)	M&M VAP/Reputed make/canara/dantal or equivalent	Reputed make
49	Hydraulic System Driven By	Main engine/ power pack unit	Power pack unit

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50	Tipper Container Material	Mild Steel	MS (1018) have no corrosion resistant properties. **AISI 4140** bears good corrossion resistant properties including higher mechanical strength. Hence, AISI 4140 is preferable.
51	Thickness of sheet from tipper collector container made (mm)	2	Min. 2
52	Dumping Height (mm)	950/551/900	Min. 1000
53	Engine Oil pressure level indicator in control panel	yes	yes
54	Fuel Gauge Indicator in control panel	yes	yes
55	Engine cooling liquid temperature indicator in control panel	yes	yes
56	Operating hour meter	no	Optional
57	Locking / Unlocking of Tipper discharge container	yes	yes
58	Lowering/ Lifting if Tipper discharge container	yes	yes
59	Counter weight	no	no
60	If Yes counter weight (kg)	0	
61	Paint	Automotive point	Automotive point
62	Standard spare wheel and tool kit	yes	yes
63	Warranty Time (Month)	12	12
64	No. of Free service (Nos)	3	3
65	Battery Warranty (Months)	12	12
66	Warranty distance (km)[Unlimited during warranty period]	yes	yes
	Important Additional Parameters		
67	Duration of Bin Lifting		20 second at idle condition of chassis
68	Pressure of Hydraulic Pump		Min. 200 Kg/cm2
69	Driver of Hydraulic Pump		Hydraulic pump is to be driven by auxiliary PTO

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70	Engagement of PTO		From driver's Cabin
71	Body Supporting Frame		Hollow Section-40 X 25 mm
72	Main Frame Channel		ISMC 75 X 40
73	Main Frame Thickness		3 mm
74	Bottom Plate Thickness		3 mm
75	Side plate thickness		2 mm

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Annexure-II

Technical Specification of Backhoe Loader

1. ENGINE

(a) BS IV CEV Engine Norms
(b) 4-cylinder diesel engine, liquid cooled.
(c) Displacement : Min. 3800-3900 cc
(d) Gross Power : Min. 74.0 HP @2200 rpm
(e) Torque :Min. 300 Nm @ 1300-1400 rpm

2. STEERING

(a) Front Wheel Steering with dedicated Steering Pump (Gear pump; Min. 30 lpm @ 2000-2200 rpm)
(b) Steering Wheels : Front
(c) Front Steer Axle of Oscillation : Approx. 20°

3. TRANSMISSION

(a) 4 Speed (4 Forward and 4 Reverse)
(b) 2 Wheel Drive
(c) Synchro Shuttle Transmission
(d) Torque Converter Stall Ratio : Approx. 2.64:1

4. HYDRAULIC SYSTEM

a) Hydraulic System Capacity : 140 litre
b) Pump : Piston Type, Axial
c) Pump Capacity : Min. 110 lpm
d) System Pressure : Min. 220 bar

5. TURNING CIRCLE

a) External turning radius over tyres (Unbraked/braked) :Approx.4300mm/3300 mm
b) External turning radius over tyres (Unbraked/braked) : Approx. 5750 mm/5000 mm
c)

6. AXLES

a) Front Axle-Steer axle, Centrally Pivoted
b) Rigidly mounted rear axle with outbound planetary drives

7. BRAKES

a) Service Brake-Hydraulic wet multi disc, dual pedal braking
b) Parking Brake-Mechanical on rear axle

8. TRAVEL SPEED

a) $1^{st}/2^{nd}/3^{rd}/4^{th}$: Approx. 5.4/8.6/19.9/40 km/h

9. SERVICE REFILL CAPACITIES

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a) Engine Oil : Min.11litre
b) Hydraulic Tank : Min. 70 litre
c) Transmission Oil : Min. 16 Litre
d) Rear Axle Oil : Min. 14.5 Litre
e) Fuel Tank : Min. 120 Litre
f) Liquid Cooling Tank Volume : Min. 16Litre

10. ELECTRICALS

a) Battery 12 Volts/130Ah
b) Alternator-Output 90A

11. TYRES

a) Front : As per OEM with ICAT/ARAI/equivalent certification
b) Rear : As per OEM with ICAT/ARAI/equivalent certification

12. OVERALL MACHINE DIMENSIONS

a) Overall Length : Approx. 6000-7000 mm
b) Wheelbase : Approx. 2100 -2200 mm
c) Backhoe Swing Centre Distance : Approx. 1300 mm
d) Ground Clearance : Approx. 280-380 mm
e) Cab Height : Approx.2800-3000 mm
f) Machine Height in travel position : Approx. 3750-3800 mm
g) Machine Width : Approx. 2280-2330 mm
h) Overall Width with Bucket : Approx. 2350mm
i) Rear Wheel Track Width : Approx. 1725mm
j) Front Wheel Track Width : Approx. 1965mm
k) Operating Weight : Approx. 7000-8000 kg

13. BACKHOE PERFORMANCE

a) Backhoe Bucket Capacity : Approx. 0.27m^3
b) Width : Approx. 880mm
c) Bucket Tear out Force : Approx. 6000 Kgf
d) Dipper Tear out Force : Approx. 3000 Kgf
e) Lift Capacity of Bucket Pivot at full reach (no bucket fitted) : Approx. 1600 kg
f) Bucket Rotation Angle : Approx. 190-200°

14. LOADER PERFORMANCE

a) Loader Bucket Capacity : Min. 1m^3
b) Width : Approx. 2235mm
c) Lift Capacity at Maximum Height : Approx. 4000 Kg
d) Payload : Approx. 2000kg
e) Shovel Breakout Force : Approx. 6000 Kgf
f) Loader Arm Breakout Force : Approx. 6000 Kgf
g) Maximum Hinge Pin Height : Approx. 3500 mm
h) Bucket Roll Back Angle at Maximum Hinge Pin Height : Approx. 60°
i) Maximum Bucket Rollback at Ground Level : Approx. 45°

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Annexure-III

Sile wise list of the infrastructure development works to be taken up in the ULBs for smooth progress of solid waste management projects

Sl No	ULB Name	Project Name	Amount (In Rs)
1	Ghatal	Construction of Boundary Wall for Dumping Ground within Ghatal Municipality.	8443675
2	Beldanga	Construction of boundary wall at Beldanga Municipality Segregation land in Bagdanga math, Mouza-Maniknagar, JL No-54, Beldanga Municipality.	8455716
3	Mekliganj	Construction of Boundary Wall With Iron Gate of CPU in ward no -06, Under Mekliganj Municipality.	4331708
4	Jangipur	Construction of boundary wall at Gadaipur Dumping Ground for SWM project of Jangipur Municipality.	1440577
5	Jhargram	Boudary Wall with gate for dumping ground at Mouza-Jangle Khas, J.L. No- 395, R.S. Plot No-1253 &L.R. Plot No -R.S. Plot No- 111 & 159/187 under Solid Waste Management Project within Jhargram Municipality	12597540
6	Ghatal	Development of Land for Dumping Ground within Ghatal Municipality.	8564465
7	Gayeshpur	Metal Road at the site of SWM project under Gayeshpur Municipality.	1701175
8	Egra	Construction of approach road of Dumping Ground at Bastia Mouza, ward No- 3 within Egra Municipality.	4574286
9	Khirpai	Repairing of C.C Road with Drop Wall from Main Canal CC Road to Vuta danga Dumping Ground at Ward No - 7 under Khirpai Municipality.	1166078
10	Islampore	Construction of cement concrete road at Sialtore from the Islampur Bypass Road to the Dumping Ground (under S.W.M)	2844978
11	Chandrakona	Construction of approach road (Bituminous) from near Dhamkura Office to PWD road under Chandrakona Municipality within SWM Project in District of Paschim Medinipur.	7707891
12	Ghatal	Construction of Concrete road from Vivekananda more to Dumping Ground within Ghatal Municipality.	2489092
13	Jangipur	Approach road from Vallar more to SWM project site of Jangipur Municipality.	1681572
14	Dalkhola	Construction of cement concrete road & guard wall from Hatbari road via. Uttar Dalkhola High School to dumping ground at ward no 11 of Dalkhola Municipality.	6550358
15	Jhargram	Approach road for dumping ground at Mouza- Jangle Khus, JL no- 395,Rs Plot-1253	7467399
16	Khardah	Construction of Cement concrete approach road at Trenching ground within Khardah Municipality.	8167727

Sl No	ULB Name	Project Name	Amount (In Rs)
17	Chakdah	Boundary wall of SWM Project under Chakdah Municipality	3861649
18	Haldibari	Construction of Temporary Segregated Chamber (Dry and Wet waste) at Firingi Danga, Tensing Ground under Haldibari Municipality.	572279
19	Arambagh	Construction of Temporary Segregated chamber at dumpsite, Arambag Municipality.	572279
20	Taherpur	Maintenance of Bituminous Road No-2 at ward No- 01,02, Taherpur Municipality.	1211735
21	Taherpur	Maintenance with widening of Bituminous Road No-22 at ward No-10,11 & 04, Taherpur Municipality.	4030915
22	Taherpur	Maintenance of Bituminous Road No-22 at ward No-10,11,12 & 13 Taherpur Municipality.	1030703
23	Kalimpong	Land Development and sorting yard for SWM	3882891
24	Kalimpong	New Constrcution of Bituminous Macadam Mastic Asphalt Approach Road and RCC Culvert	5472769
25	Kalimpong	Jhora (Drop Guide) and strom water drain	7205202
26	Kalimpong	Reparing of Bituminous Road and addition of Macadam Mastic Asphalt	5212479
27	Kalna	LAnd Development of dumping ground	1581114
28	Kalna	Construction of approach concrete road at Dump Yard	399565
29	Kalna	Construction of Boundary wall at dump yard	6282932
30	Tufangunge	Renovation of MRF & CPU with paver block road and earth filling work	2288611
31	Tufangunge	Construction of Boundary wall for SWM processing Centre	2430721
32	Bansberia	Construction of concrete road with toe wall	1344194
33	Bansberia	Construction of concrete road with toe wall (Phase-II)	1040189
34	Bansberia	Construction of Drain, Protection wall and road	4216241
35	Ramjibonpur	Construction of Boundary wall around proposed dumping area	9962046
36	Mirik	Construction of Rigid road from near PWD Road to Proposed dumping Ground	6963150
37	Kurseong	Land Development for construction of Central Processing Unit at SWM dumping site at section Chaina OG,Under Kurseong Municipality	9897783
38	Kurseong	Construction of Road near SWM dumping yard at Suntaley pakha and resturation of damage road near Dhargon, Stacking platfrom at dumping yard, ward no. 19, under Kurseong Municipality.	4231917
39	Darjeeling	High hill slope protection RCC cantilever retaining wall of 5m and 4m height considering with super imposed traffic load	4858774
40	Darjeeling	Jhora (Drop Guide) and strom water drain	2868539

Sl No	ULB Name	Project Name	Amount (In Rs)
41	Darjeeling	High hill slope protection wall gravity retaining wall of 3.5m and 2.7m height with inclined backfill	2759540
42	Darjeeling	RCC counterfort retaining wall of 6.50m Height considering super inposed taraffic load along the apprach road	2915306
43	Darjeeling	Land Development at high hill slope areas and sorting yard for SWM	3696594
44	Darjeeling	Bituminous macadam with mastic asphalt approach road and RCC storm water	5747966
45	Guskara	Construction of Concrete road leading from Ca.	428951
46	Guskara	Land Development at dumping ground in ward	489356
47	Guskara	Construction of Boundary wall at Dumping Grou..	499548
48	Dinhata	Construction of roof shed of new scientific	4718680
49	Kaliaganj	Constructon of Boundary Wall with Entrance	5023425
50	Kaliaganj	Construction of Road with Protection wall	4148849
51	Dinhata	Construction work for concrete road with beautification	4604846
52	Sainthia	Construction of R.C.C short span Bridge on Ca..	1219287
53	Sonamukhi	Earth filling work of dumping ground for SWM..	2497292
54	Sonamukhi	Construction of boundary wall for SWM project	13193415
TOTAL			**231545969**