

**(XIII) Particulars of recipients of concessions, permits or authorizations granted by it**

**1. Segregation at source:**

Transportation and Recycling / Processing of recyclable waste from Material Recovery Facility (MRF) under Swachh Bharat Mission.

**2. Door to Door collection of garbage**

- To comply the MSW Rule 2016 Door to Door garbage collection system is made operative from 2004 in all zones covering almost whole area of the city. There are Three different agencies working in Eight zones. The tenure of contract is ten year for all zones, as "One Zone One Agency" Policy.

Sr. No.	Name of Zone	Name of Agencies (Door to Door Garbage collection
1	Central	Global Waste Infra Pvt. Ltd.
2	East –A	M/s Jigar Transport Co.
3	East –B	
4	North	Global Waste Infra Pvt. Ltd.
5	West & Central Zone-A	Global Waste Infra Pvt. Ltd.
6	South-West	Metrro Waste Handling Pvt. Ltd.
7	South ( A & B)	Global Waste Infra Pvt. Ltd.
8	South-East	M/s Jigar Transport Co.

**a) Management of Hotel-Kitchen waste**

- Introduced in 2000
- Hotel kitchen waste is collected and transported by the hotel association
- Total no. of hotels & restaurants – around 300
- Vehicles deployed by the hotel association -18

**b) Anudan Scheme” For Urban Dweller Units**

- Area covered – More than 5 Lac Sq. Mt.
- Minimum Rs. 1600/- per society.
- Total activity organized by president of housing colonies.
- Rate for residential area 0.80 ps. per Sq. Mt.per month
- Rate for Industrial & Residential cum Industrial area 0.65 ps. per Sq. Mt.per month
- Area considered for Grant in Aid : 25% of lay out area.
- More than 800 societies
- Manpower engaged – more than 500

**3. Modernization of Refuse Transfer Station**

No. of Transfer Station	All Eight Transfer stations are operational.
Facility at Transfer Station	All the primary collecting vehicles from Door to Door Garbage collection and sweeping activity reaches to transfer station from where secondary transportation vehicles are loaded for the purpose of transferring it to disposal site.
Concept of Modern transfer station	<ul style="list-style-type: none"><li>Primary collecting vehicles sent to the Elevated Platform through Ramp.</li><li>Chutes are provided at Elevated Platform to receive the MSW from where it is unloaded by primary collection vehicles.</li><li>Secondary transport vehicle is kept underneath the chutes.</li><li>MSW unloaded from primary collection vehicles is transferred into the closed container provided with compactor system.</li><li>The chute portion of transfer station is covered on the top with FRP sheet and whole structure is kept closed with concrete louvered blocks.</li><li>Transportation of container is carried out on Hook lifting vehicles.</li><li>Containers are fully closed with leak proof door opening system</li></ul>
Mechanical MRF	<ul style="list-style-type: none"><li>Mechanical MRF O &amp; M have started at the Bhatar, Anjana and Katargam , pal,bhestan , varachha Kosad And Dindoli RTS.</li><li>Waste Collected from Commercial units and Roadside dustbin is passed</li></ul>

	<p>through Mechanical MRF to recover dry waste</p> <ul style="list-style-type: none"><li>• For this dry waste, SMC has awarded work for the sale of Various Recovered dry waste consisting of Plastic and Non- Plastic Material Recovered from Material Recovery Facility operated at all Refuse Transfer Station and Other Designated Areas within Surat City limits for 10 Years.</li><li>• SMC will be earning 0.45 Rs/Kg for Plastic recovered waste and 0.35 Rs/Kg for Non-Plastic recovered waste for 1<sup>st</sup> year and then 5 % after price increase every year</li></ul>
Results Achieved	<ul style="list-style-type: none"><li>• MSW received through closed vehicles is dropped to closed containers without secondary handling.</li><li>• Covered leak proof container preventing spillage of garbage on the road.</li><li>• No foul odour, as transfer station is semi-closed and transport containers are fully closed.</li><li>• No MSW storage, permanently or temporary, at transfer station as it will be directly transferred to containers without secondary handling, therefore no flies nuisance &amp; animals entry is restricted.</li><li>• Separate leachate collecting system is provided.</li><li>• Reduction of dry waste load at final disposal site.</li></ul>

4.     **Treatment of Municipal Solid Waste.**

1.   **Centralized Waste Processing Treatment Plant at Khajod.**

The integrated MSW treatment process of Surat Municipal Corporation is to find the best possible technology and scientific solution for the perennial garbage disposal problem for the city through Public Private Partnership. The integrated treatment technology promoted by C D Transport. was selected as most appropriate technology for treatment of MSW, the agency has installed the facility on BOOT basis for concession period of 03 years. The quantity agreed for agency is minimum 2500MT per day subjected to maximum treatment of 30,00,000.00 MT for treatment. The plant is operated since jan 2023.

**Salient Features Of Project**

- 1. Free of Cost
- 2. Investment by agency for construction, operation and maintenance.
- 3. All the permissions, NOC, Consent to follow up the prevailing Rules and regulations is with the agency.
- 4. S.M.C. giving recommendation letters as and when required without taking inancial responsibility.
- 5. Land provided is 25 acres.

Technology Involving Processing of MSW into the following:

- 1. MSW (100%) Segregation
- 2. Wet organic material (30-35%) – Composting.
- 3. Dry organic material (35-40%) – RDF.
- 4. Recyclables (3-5%) – Plastic, MS and rubber items.

2.   **Treatment and final disposal of Bio Medical Waste:**

Concession Agreement Signed by Surat Municipal Corporation with Agency named En-Vision Enviro Engineers –Surat to establish, operate and maintain the centralized Biomedical waste treatment facility, Now it is name as En-cler Bio Medical Waste Pvt. Ltd.

**Background**

- Requirement of BMW (M&H) Rule
- Every Urban Health Centers & Hospitals in town with population less than 30 lakhs with numbers of beds between 50 & 500 must have treatment facility on or before 31st December 2002.
- Municipal authorities in large cities should check feasibility of setting up common hospital waste treatment facility.
- Compliance to BMW (M&H) Rule
- It is not economically feasible for small unit to establish treatment facility.

- Pilot survey conducted to get the estimated quantity of waste generation.
- Decision for common treatment facility on BOOT base with treatment charge as Rs.16/- per Kg. taken. Private Practitioners were asked to join the common treatment facility.
- Tenders on BOOT base were invited in Aug.2001.
- Open house discussion with beneficiaries was held to discuss contents of tenders.

#### **Role played by SMC to safeguard the facility**

- Allotment of land admeasuring 4200 sq.mt. at token rent of Re.1/- per sq.mt. per annum.
- Minimum 200 Kg. per day of bio-medical waste Kept as guaranteed quantity to be deposited by SMC.
- Provision for entering in to an agreement with private health care units.
- Provision of room for collection of BMW at all the UHCs of Municipal Corporation.

#### **Centralized Biomedical Waste Collection, Treatment & Disposal Facility**

- BOOT Contract
- Introduced in Jan 2003
- Land 4046.82 sq. mt. provided by SMC at token rent
- Facility to be in strict adherence to BMW (M & H) Rules.
- Collection of waste – 5200 Kg./Day
- Capacity of plant 6500 kg / Day
- Incineration – 1 Unit with dual chamber - 200 kg./hr.
- Autoclave - 1 Unit - 125 kg./hr
- Shredder - 4 Units - 400 kg./hr (100 kg./hr. each unit.)

### **3. Centralized Plastic Waste Management Plant:**

Concession Agreement Signed by Surat Municipal Corporation with Agency named Eco Vision resources L.L.P for 15 years concession period. SMC has provided 2-acre land on token rent at Bhatar. Agency is producing at moment. Minimum one collection centre per zone has been established and operated by agency. Tie-up with rag pickers and NGO has been done by agency to lift street level plastic.. The Processing plant operational since June 2017, presently has processing capacity of 200 TPD. Tie up with SUMUL Dairy under EPR for collection of plastic bags used for milk packaging. Daily 1.5 lac milk bags are collected and processed. A Toll-Free No. 1800 233 3002 for plastic waste collection is also given to citizens.

### **4. Organic Waste Management**

There are various stream of organic waste generation Hotel and Restaurant Kitchen Vegetable and Non-vegetable Municipal Markets & Slaughter Houses Municipal as well as private gardens Cattle farms Waste from all the streams will be collected separately and transported to proposed process plant

- 1 TPD organic waste processing plant at Kosad transfer station work in progress.
- Policy regarding installation of OWC units at society level has been formulated in accordance with MSW rules-2016. And unit rate for 50kg, 100kg, 150kg, 200kg and 250 kg is formulated vide Std. Comm. Res. No. 2050/2016, dt. 22/12/2016. Strict penalty action has to be initiated by health department.
- More than 27 Nos. of OWC units, is installed at different Vegetable and Non-vegetable Municipal Markets & Slaughterhouses
- Home composting at individual household level has been started.
- Around 180 nos of society is processing Organic Waste onsite.

### **5. C & D Waste Management**

Project mode is on PPP mode with 20 years concession period and Overall 300 TPD Plant Set up by SPV named Surat Precast Green Pvt. Ltd. SMC provided 3 acre land on token rent at Kosad. Agency is producing various construction materials such sand, block, Paver block etc. Agency is collecting collection charges directly from Users/ Generator. Agency has

deploy GPS based vehicles for efficient monitoring. Plant is commissioned from Feb-2019 with capacity of 300 TPD. Toll Free No. 1800 212 2829 for C & D waste collection is also given to citizens.

## **6. Dumpsite Remediation.**

Since 2001 to 2018, approx. 25,00,000 lac MT of Solid waste generated from the Surat City was dumped in an open space of about 6,12,000 sq.m. at Khajod Final Disposal Site. The work related to Scientific Closure/Capping of said opened dumped waste was carried out by Surat Municipal Corporation with an approximate cost of Rs 60 Crores and in the time period of 18 months this huge garbage junk yard was converted into beautiful garden in the area of 3,44,000 sq. Mt. The work is completed on December- 2019.

## **7. Biomining of Legacy Waste.**

Honorable NGT alarmed that due to incremental growth of municipal solid waste (MSW), old waste dumps are converted into virtual mountains, Hence, Hon. NGT directed CPCB to proposed standard operating processing (SOP) for implementation of Bio-mining and Bioremediation of legacy solid waste and order to conduct the biomining process of legacy waste as per the provision laid in SWM rules 2016 and accordingly, SMC has awarded the work related to Bio-mining of existing old dumped waste located near Bhatar Sewage Treatment Plant and Sanitary Landfill cell no.02 (SLF-2) at Khajod disposal site including disposal of residue inert at SLF-2 and closure of SLF-2 as per the provisions Of Solid Waste Management Rules 2016, under Swachh Bharat Mission. The said work is completed

## **8. Scientific Land Filling**

Every local body has to design develop, Build and operate the scientific land fill site, as prescribed in MSW Rule – 2000 and SWM Rules - 2016 to dispose their Waste into it. Surat Municipal Corporation (SMC) initiated Waste to Energy project during year 2001 – 2002. To receive the inert which was supposed to be generated after processing of MSW, SMC started construction of scientific land fill site simultaneously. As such the project of Municipal Waste to Energy could not start during 2002 due to technical reasons, but the land fill construction was completed during year 2002. SMC was first at that time to develop scientific land fill site in the country with a capacity of 1.25 lac cu.mt. with cost of Rs. 131 lacs whose capacity exhausted in 2011, and the capacity of the same SLF has been extended up to capacity of 8,25,000 m<sup>3</sup> at cost of 21 Cr under Swachh Bharat Mission which is under utilization whereas 2<sup>nd</sup> SLF cell capacity of 6,25,000 cu.mt. Constructed under JnNURM scheme was exhausted and the work related to Biomining of the SLF along with closure is completed.

## **9. Decentralized Organic Waste Treatment Facility**

To reduce the possible fraction of Organic waste reaching landfill site, 100 M.T./day decentralized Organic Waste Treatment Facilities in Surat City Under CSR/CER Funding is completed and another 90 M.T./day decentralized organic waste treatment facilities under CSR/CER Funding shall be established at Vadod, Bamroli. The said plants shall be operational by December 2025.

## **10. Centralised Waste Processing Plant at Umber**

To ensure treatment of Municipal Solid Waste generated from Surat City along conservation of Environment, Surat Municipal Corporation has awarded the work of Establishment of Processing facility of 3000 M.T./day at Umber along with its operation and maintenance for the period of 10 years. The said plant will incorporate latest technology and state of the art equipments/machineries like EOT type windrow turners, Mechanised Aeration system, Shredders, Bailing machines, BOT segregation system, etc. along with, Sanitary Landfill Cell and Relevant Road, Parking Weigh Bridge and Necessary Infrastructure at Umber. The said work shall be

completed by April 2026.

#### **11. Work Under Planning Stage**

To meet future challenges SMC is Planning to Implement the offal waste processing plant with new Methodology and Implementation Methodology is under Planning Stage

- a. SMC has planned below mentioned work for the effective management of offal waste.**

**Establishing 5 TPD Capacity of Plant with Suitable Technology for collection, Treatment and processing of offal waste including small and big dead animals as per the provisions of solid waste management rules 2016 including design, construction, erection, testing and commissioning along with successive operation and maintenance for the period of 20 years in surat.**