

**Monthly Performance Report  
(HWT-NG100-MPR-43-R0)**

**February 2020  
(From 01/02/2020 to 29/02/2020)**

**100 TPD Municipal Solid Waste (MSW) Facility  
Calangute, North Goa**

*Prepared By*  
**Hindustan Waste Treatment Pvt. Ltd.  
(HWT)**

*Submitted To*  
**Goa Waste Management Corporation (GWMC)  
Department of Science & Technology (DS&T)**

**Table – 1**  
**Summary of Overall Average Results for February 2020**  
*(As compared to Schedule – 7: Performance Standards, Volume – I of RFP)*

Sr. No.	Parameter	Performance Standard As per Schedule – 7	Actual Performance at Plant (Monthly Average)
1.	Number of fractions of recyclables sorted per day from the input mixed waste	Minimum 10 numbers of fractions shall be sorted daily from the input dry waste as received in the facility. The list of fractions are as follows: 1. PET Bottles 2. Mixed Plastic Articles 3. Newspapers / other Paper Material 4. Cardboard 5. Styrofoam & Thermocol 6. Coconut Shells 7. Clothes 8. Rubber Articles 9. Metal Articles & Cans 10. E-waste Articles and any Hazardous Waste	<b>13 numbers</b> of fractions are being sorted daily from the input dry waste as received in the facility. The list of fractions are as follows: 1. Glass 2. Aluminium 3. Metal 4. Paper + Cardboard 5. Tetra Pack 6. Hard Plastic 7. PET 8. Mixed Plastic 9. Styrofoam + Thermocol 10. Cloth + Rags + Textile 11. Leather + Rexine + Rubber 12. Coconut Shells 13. E-waste Articles and any Hazardous Waste
2.	Quantum of reject/residues to be sent to the landfill after processing. No organic fraction shall be disposed in the landfill.	Maximum 10% of inert of the total input waste as received in the facility (in TPD).	Input waste to the Plant is <b>172.09 TPD</b> . Quantum of Inert is <b>0.15 TPD</b> which is < 10% of the Total Input Waste as received in the Facility.  No Organic Waste has been disposed in the Sanitary Landfill Facility.
3.	Electricity generation in the Plant	Minimum electricity to be generated in the plant shall be 0.40 MW per 100 tons of input wet biodegradable waste as received in the Facility (in TPD).	Electricity generation is <b>0.54 MW/100 MT</b> of Input Biodegradable Waste as received in the Facility (in TPD).
4.	Biogas Flaring System	The Biogas Flaring System shall strictly be used only in case of	Biogas is being flared strictly, only under emergency and not as a

Sr. No.	Parameter	Performance Standard As per Schedule – 7	Actual Performance at Plant (Monthly Average)										
		emergency and not as a routine practice.	routine practice. The average running time of Biogas Flaring System is <b>3.02 hours/day</b> .										
5.	Discharge of treated effluent conforming to regulatory norms	Effluent Treatment Plant shall be operated under all conditions.	Effluent Treatment Plant is being operated continuously and is meeting all statutory conditions. The Treated Effluent Characteristics are as follows: <table border="1" data-bbox="1036 646 1403 856"> <tbody> <tr> <td>pH</td> <td>6.98</td> </tr> <tr> <td>BOD</td> <td>7 mg/l</td> </tr> <tr> <td>COD</td> <td>71 mg/l</td> </tr> <tr> <td>TSS</td> <td>8 mg/l</td> </tr> <tr> <td>TDS</td> <td>1,649 mg/l</td> </tr> </tbody> </table>	pH	6.98	BOD	7 mg/l	COD	71 mg/l	TSS	8 mg/l	TDS	1,649 mg/l
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6.	General Housekeeping, hygienic conditions, cleanliness, safety norms, adequate manpower, treatment methodology for plant operation & maintenance and storage conditions in the plant.	Minimum housekeeping, safety norms and cleanliness conditions shall be maintained at all times as per the Bid Document requirement.	<ul style="list-style-type: none"> <li>• High standard of Housekeeping, Cleanliness and Safety are being maintained at all times at the Plant.</li> <li>• Adequate manpower has been deployed in all shifts.</li> <li>• Also, the treatment methodology is being followed properly and proper storage conditions have been maintained in the Plant.</li> </ul>										

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

#	Plant Performance Data: February 2020		
Sr. No.	Content	Month	Signature
1	Input Waste Composition	From 01.02.2020 To 29.02.2020	
2	Recyclables		
3	Electricity Generation		
4	Biogas Flare		
5	Effluent Treatment Plant		
6	Inert		
7	Housekeeping		

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

1 WASTE:																									
Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average 1-7	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average 8-14	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb		
1.1 Input Waste:																									
1	Type 1: Dry Waste	TPD	67.33	66.13	85.34	69.76	78.97	81.45	70.50	74.21	44.43%	73.22	60.17	87.69	85.49	77.69	88.05	70.20	77.50	44.94%	82.69	65.52	69.58	78.51	80.56
2	Type 2: Wet Waste	TPD	90.82	96.94	90.90	84.31	88.52	89.85	93.60	90.71	54.31%	98.74	95.75	94.20	89.40	96.61	82.15	87.58	92.06	53.38%	91.62	87.09	100.14	96.57	95.04
3	Type 3: Mixed Waste	TPD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
4	Type 4: Tree Waste	TPD	1.02	2.58	2.23	1.95	3.16	2.62	1.12	2.10	1.26%	2.96	2.71	3.39	3.75	4.09	1.70	1.73	2.90	1.68%	2.41	1.10	1.10	2.59	2.33
5	Total.....(1)+(2)+(3)+(4)	TPD	159.17	165.65	178.47	156.02	170.65	173.92	165.22	167.01	100.00%	174.92	158.63	185.28	178.64	178.39	171.90	159.51	172.47	100.00%	176.72	153.71	170.82	177.67	177.93

- # Note:  
 1 Type-I: Dry Waste: This has 25-30% Organic and 70-75% Inorganic.  
 2 Type-II: Wet Waste: This has 65-70% Organic and 30-35%  
 3 Type-I: Mixed Waste: This has 45-50% Organic and 50-55% Inorganic.

Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb		
1.2 Output Products:																									
1	Organic Fraction	TPD	79.56	84.94	85.54	74.79	82.61	81.02	84.54	81.86	49.01%	85.05	81.73	89.91	81.07	83.95	78.23	78.93	82.70	47.95%	85.42	76.02	89.98	87.16	88.24
2	Inorganic Fraction:																								
	Recyclables	TPD	11.97	12.13	13.68	11.46	12.43	11.80	12.44	12.27	7.35%	11.93	11.29	13.79	13.13	12.39	13.28	11.33	12.45	7.22%	12.57	10.68	11.74	12.92	12.01
	RDF	TPD	61.56	63.42	74.59	65.66	70.46	76.44	65.04	68.17	40.81%	72.64	60.95	75.72	78.38	75.40	76.48	65.61	72.17	41.84%	73.62	63.48	65.55	72.51	73.01
	Bulking Material	TPD	2.37	2.58	2.43	2.16	1.99	2.04	2.08	2.24	1.34%	2.34	1.95	2.47	2.31	2.56	2.21	1.91	2.25	1.30%	2.70	2.43	2.44	2.49	2.34
	Inert	TPD	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.23%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
3	Tree Waste	TPD	1.02	2.58	2.23	1.95	3.16	2.62	1.12	2.10	1.26%	2.96	2.71	3.39	3.75	4.09	1.70	1.73	2.90	1.68%	2.41	1.10	1.10	2.59	2.33
	Total.....(1)+(2)+(3)	TPD	159.17	165.65	178.47	156.02	170.65	173.92	165.22	167.01	100%	174.92	158.63	185.28	178.64	178.39	171.90	159.51	172.47	100%	176.72	153.71	170.82	177.67	177.93

2 RECYCLABLES:																									
Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb		
1	Glass	Kg	206	228	176	185	184	206	246	204		224	234	273	210	227	255	221	235		192	214	221	175	193
2	Aluminum	Kg	158	163	106	108	151	120	115	132		155	78	164	157	139	85	110	127		174	76	153	105	123
3	Metal	Kg	237	261	282	293	268	291	312	278		258	312	309	297	261	306	237	283		349	244	305	315	299
4	Tetra Pack	Kg	111	114	88	139	167	86	82	112		86	125	182	140	105	153	142	133		87	137	153	140	158
5	Hard Plastic	Kg	221	163	247	308	167	223	279	230		206	218	255	210	349	323	205	252		192	259	187	228	281
6	PET	Kg	253	228	317	154	167	343	312	253		206	265	182	350	279	170	268	246		349	244	221	280	193
7	Mixed Plastic	Kg	10,643	10,893	12,284	10,153	11,172	10,432	10,945	10,932		10,713	9,963	12,259	11,665	10,946	11,829	10,035	11,059		11,051	9,386	10,370	11,573	10,589
8	Thermocol + Styrofoam	Kg	142	82	176	123	151	103	148	132		86	94	164	105	87	153	110	114		174	122	136	105	176
9	Cloth + Rags + Textiles	Kg	1,423	1,419	1,604	1,094	1,072	1,233	1,428	1,325		1,479	1,201	1,564	1,102	1,586	1,396	1,467	1,399		1,081	916	1,544	1,558	1,036
10	Leather + Rexine + Rubber	Kg	870	1,614	1,234	786	1,457	1,028	837	1,118		1,049	1,247	1,783	1,644	1,238	987	1,104	1,293		1,255	1,496	1,069	1,015	966
11	Paper + Cardboard	Kg	1,028	1,125	1,146	924	1,055	1,148	1,001	1,061		1,135	982	1,091	1,137	1,063	1,157	1,104	1,096		1,185	1,053	1,154	1,121	1,177
12	Coconut	Kg	1,344	1,451	1,287	1,233	938	891	1,083	1,175		1,204	967	1,382	1,172	1,499	1,055	805	1,155		1,516	1,373	1,290	1,366	1,159

- # Note:  
 1 Item No. 9 (Cloth + Rags + Textiles) and 10 (Leather + Rexine + Rubber) are sent to Cement Plants as RDF.  
 2 Item No. 11 (Paper + Cardboard) and 12 (Coconut) are used as Bulking Material in Composting.

3 DISPOSAL OF INERT:																									
Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb		
1 As per Tender: Maximum 10% of Inerts of the Total Input Waste (excluding Mulched Tree Waste) as received in the Facility.																									
2	Input Waste	TPD	159.17	165.65	178.47	156.02	170.65	173.92	165.22	167.01		174.92	158.63	185.28	178.64	178.39	171.90	159.51	172.47		176.72	153.71	170.82	177.67	177.93
3	Inert Fraction	TPD	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.38		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
4	% of Total Input Waste.....(3) ÷ (2)	%	1.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.24%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	

4 ELECTRICITY GENERATION:																									
Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb		
3.1 Biogas Gensets:																									
1	Biogas Genset-I: Running Time	hr/day	23.60	24.00	24.00	18.00	23.90	23.75	22.60	22.84		24.00	24.00	24.00	24.00	24.00	22.75	23.60	23.76		23.90	23.95	23.70	23.70	23.40
2	Biogas Genset-I: Biogas Consumption	Nm <sup>3</sup> /day	2,213	2,299	2,298	1,692	2,275	2,243	2,113	2,162		2,272	2,289	2,299	2,290	2,282	2,162	2,251	2,264		2,289	2,296	2,268	2,269	2,222
3	Biogas Genset-I: Energy Generation	kW.hr/day	3,910	3,819	3,807	3,838	3,970	3,810	3,670	3,832		4,010	4,000	3,930	3,960	4,000	3,710	3,810	3,917		3,970	3,970	3,830	3,900	3,820
4	Biogas Genset-II: Running Time	hr/day	23.45	23.95	23.95	21.60	23.95	23.75	22.40	23.29		23.95	23.95	23.95	23.95	24.00	22.70	23.55	23.72		23.85	23.95	23.70	23.70	23.35
5	Biogas Genset-II: Biogas Consumption	Nm <sup>3</sup> /day	2,033	2,132	2,113	1,874	2,110	2,104	1,976	2,049		2,114	2,125	2,130	2,115	2,122	2,001	2,089	2,100		2,123	2,133	2,094	2,098	2,060
6	Biogas Genset-II: Energy Generation	kW.hr/day	3,880	4,001	3,783	3,642	3,970	3,850	3,700	3,832		4,000	3,980	3,910	3,930	3,970	3,690	3,800	3,897		3,940	3,930	3,810	3,870	3,800
7	Total Biogas Consumption = (2)+(5)	Nm <sup>3</sup> /day	4,246	4,431	4,411	3,565	4,386	4,347	4,090	4,211		4,387	4,414	4,430	4,405	4,404	4,164	4,340	4,363		4,413	4,429	4,362	4,366	4,282
8	Total Energy Generation = (3)+(6)	kW.hr/day	7,790	7,820	7,590	7,480	7,940	7,660	7,370	7,664		8,010	7,980	7,840	7,890	7,970	7,400	7,610	7,814		7,910	7,900	7,640	7,770	7,620

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average 1-7	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average 8-14	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
<b>3.2 Electricity Generation:</b>																							
1	<u>As per Tender:</u> Minimum electricity to be generated in the plant shall be 0.4 MW per 100 tons of Input Biodegradable Waste as received in the Facility.	MW/100 MT	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
2	Biodegradable Waste = 1.2.2	TPD	90.82	96.94	90.90	84.31	88.52	89.85	93.60	90.71	98.74	95.75	94.20	89.40	96.61	82.15	87.58	92.06	91.62	87.09	100.14	96.57	95.04
3	Guaranteed Electricity Generation = (3.2.2 x 3.2.1) ÷ 100	kW	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
4	Guaranteed Electricity Generation = 3.2.3 x 24 x 1000	kW.hr/day	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760
5	Available Electricity Generation = (A2 ÷ 24) + (A4 ÷ 24)	kW	325	326	316	312	331	319	307	319	334	333	327	329	332	308	317	326	330	329	318	324	318
6	Available Electricity Generation = 3.2.5 ÷ 100	MW/100 MT	0.54	0.54	0.53	0.52	0.55	0.53	0.51	0.53	0.56	0.55	0.54	0.55	0.55	0.51	0.53	0.54	0.55	0.55	0.53	0.54	0.53
			<b>2,030</b>	<b>2,060</b>	<b>1,830</b>	<b>1,720</b>	<b>2,180</b>	<b>1,900</b>	<b>1,610</b>		<b>2,250</b>	<b>2,220</b>	<b>2,080</b>	<b>2,130</b>	<b>2,210</b>	<b>1,640</b>	<b>1,850</b>		<b>2,150</b>	<b>2,140</b>	<b>1,880</b>	<b>2,010</b>	<b>1,860</b>

<b>5 BIOGAS FLARE:</b>																							
Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average 1-7	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average 8-14	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
1	Operation Time	hr/day	0.05	0.73	0.77	7.38	3.02	3.53	0.68	2.31	0.08	0.62	0.47	9.30	3.63	1.37	3.50	2.71	1.47	0.48	2.43	2.07	2.25
2	Biogas Flared	Nm <sup>3</sup> /day	11	165	173	1,661	679	795	154	520	19	139	105	2,093	817	308	788	610	330	109	547	465	506

<b>6 DIGESTERS:</b>																							
Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average 1-7	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average 8-14	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
<b>5.1 Digester-I: Front End</b>																							
1	pH	---	7.58	7.54	7.51	7.51	7.49	7.47	7.48	7.51	7.52	7.42	7.44	7.54	7.58	7.60	7.43	7.50	7.49	7.49	7.46	7.41	7.47
2	TSS	ppm	39,638	39,026	40,915	37,352	39,638	38,697	37,348	38,945	37,258	40,401	38,503	39,504	38,508	39,032	39,575	38,969	39,599	43,319	40,262	37,874	37,530
3	VSS	ppm	28,002	27,044	28,425	26,576	26,853	26,948	24,674	26,932	24,785	27,425	23,946	25,978	25,334	27,049	26,853	25,910	27,678	26,789	28,899	26,108	27,430
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,350	8,225	7,350	7,375	7,900	7,550	7,325	7,582	7,575	6,075	7,675	8,000	8,300	8,225	7,250	7,586	7,175	6,300	7,325	7,150	7,550
5	VFA	ppm as HAC	2,664	2,747	3,162	3,162	2,913	3,079	3,245	2,996	3,079	3,660	3,079	2,830	2,581	2,747	3,079	3,008	3,162	3,494	2,996	3,079	3,079
<b>5.2 Digester-I: Back End</b>																							
1	pH	---	7.64	7.53	7.54	7.56	7.54	7.51	7.54	7.55	7.49	7.39	7.50	7.59	7.61	7.62	7.50	7.53	7.52	7.48	7.49	7.46	7.50
2	TSS	ppm	39,994	40,667	39,548	37,173	38,423	38,249	36,648	38,672	36,847	41,662	39,515	40,124	39,138	38,225	38,423	39,133	40,077	39,959	38,975	43,639	38,756
3	VSS	ppm	27,156	29,057	27,418	25,515	27,283	26,145	24,032	26,658	24,032	29,856	26,343	26,355	24,510	26,265	27,265	26,375	27,283	27,445	24,345	28,328	25,666
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,425	6,550	7,625	7,500	8,075	7,725	7,675	7,511	7,675	6,225	7,850	7,600	8,475	8,425	7,450	7,671	7,400	7,675	7,550	7,375	7,650
5	VFA	ppm as HAC	2,498	3,162	2,913	2,996	2,747	2,913	2,996	2,889	2,996	3,079	2,996	2,664	2,498	2,581	2,830	2,806	2,913	2,830	2,830	2,913	2,830
<b>5.3 Buffer Tank: Front End</b>																							
1	pH	---	7.62	7.48	7.52	7.56	7.52	7.55	7.48	7.53	7.44	7.51	7.49	7.57	7.56	7.62	7.47	7.52	7.52	7.48	7.51	7.48	7.51
2	TSS	ppm	34,782	38,130	34,274	34,172	38,130	32,305	36,567	35,480	36,644	38,130	37,601	38,532	37,348	36,980	37,980	37,602	42,244	36,567	38,989	38,130	37,060
3	VSS	ppm	24,337	24,365	24,538	22,933	27,919	20,878	24,790	24,251	24,560	24,365	26,196	25,147	25,232	25,832	26,832	25,452	29,667	24,790	26,881	24,365	27,919
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,925	7,350	7,600	7,925	8,075	7,750	7,650	7,754	7,625	7,750	7,725	8,375	8,425	7,400	7,425	7,818	7,550	7,650	7,500	7,350	7,475
5	VFA	ppm as HAC	1,917	2,996	2,830	2,581	2,498	2,664	2,664	2,593	2,830	2,664	2,913	2,332	2,332	2,498	2,747	2,617	2,830	2,664	2,996	2,996	2,913
<b>5.4 Buffer Tank: Back End</b>																							
1	pH	---	7.62	7.56	7.52	7.56	7.52	7.55	7.48	7.54	7.44	7.51	7.49	7.57	7.56	7.62	7.47	7.52	7.52	7.40	7.51	7.48	7.51
2	TSS	ppm	38,989	37,062	34,274	34,172	37,062	32,305	36,567	35,776	36,644	37,060	37,601	38,532	37,348	36,980	37,980	37,449	42,244	42,872	38,989	38,130	37,060
3	VSS	ppm	24,337	26,881	24,538	22,933	29,667	20,878	24,790	24,861	24,560	27,919	26,196	25,147	25,232	25,832	26,832	25,960	29,667	31,782	26,881	24,365	27,919
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,925	7,350	7,600	7,925	8,075	7,750	7,650	7,754	7,625	7,475	7,725	8,375	8,425	7,400	7,425	7,779	7,550	7,600	7,500	7,350	7,475
5	VFA	ppm as HAC	1,917	2,332	2,830	2,581	2,498	2,664	2,664	2,498	2,830	2,913	2,913	2,332	2,332	2,498	2,747	2,652	2,830	3,079	2,996	2,996	2,913
<b>5.5 Digester-II: Front End</b>																							
1	pH	---	7.61	7.55	7.49	7.55	7.47	7.46	7.46	7.51	7.44	7.33	7.43	7.51	7.58	7.57	7.42	7.47	7.50	7.36	7.50	7.38	7.42
2	TSS	ppm	39,201	36,953	39,508	36,953	40,348	40,348	38,170	38,783	36,953	42,785	41,964	41,232	41,937	38,589	37,588	40,150	42,702	40,348	40,039	42,646	39,556
3	VSS	ppm	30,642	29,144	30,485	26,035	27,238	28,254	26,046	28,263	26,035	30,242	29,101	30,201	26,399	26,638	26,488	27,872	29,124	28,254	29,144	28,615	27,238
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,375	7,150	7,000	7,400	7,750	7,450	7,225	7,336	7,375	7,175	7,425	7,925	8,175	8,100	7,175	7,621	7,150	7,175	7,300	7,100	7,325
5	VFA	ppm as HAC	2,664	3,079	3,162	3,079	2,996	3,079	3,162	3,032	3,162	3,162	3,245	2,913	2,747	2,664	3,162	3,008	3,245	3,162	3,079	2,996	2,996
<b>5.6 Digester-II: Back End</b>																							
1	pH	---	7.63	7.64	7.54	7.59	7.52	7.53	7.51	7.57	7.48	7.45	7.47	7.56	7.60	7.60	7.48	7.52	7.54	7.37	7.54	7.42	7.45
2	TSS	ppm	42,657	39,339	42,644	37,491	40,325	40,773	37,043	40,039	37,173	39,556	40,292	39,562	38,195	37,637	38,623	38,720	41,327	40,039	39,339	41,096	40,493
3	VSS	ppm	30,442	29,602	30,477	26,501	29,602	27,191	25,001	28,402	25,515	29,144	34,201	25,966	26,377	26,175	26,245	27,660	29,602	29,144	25,371	29,602	27,647
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,600	7,425	7,100	7,475	8,200	7,675	7,425	7,557	7,400	7,425	7,550	8,325	8,250	8,225	7,400	7,796	7,350	7,425	7,475	7,250	7,525
5	VFA	ppm as HAC	2,581	2,581	3,079	3,079	2,830	2,830	2,913	2,842	3,079	3,162	3,079	2,747	2,581	2,498	3,162	2,901	3,162	3,162	2,747	2,996	2,996

<b>7 EFFLUENT TREATMENT PLANT:</b>																							
Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average 1-7	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average 8-14	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
<b>6.1 Raw Effluent Quality:</b>																							
1	Flow	m <sup>3</sup> /day	73.74	71.23	69.71	68.99	66.55	50.25	66.84	66.76	66.84	69.63	61.33	54.98	68.15	59.00	69.68	64.23	66.38	69.33	44.48	63.28	53.47
2	pH	---	7.91	6.35	7.30	6.11	6.92	6.16	6.38	6.73	6.83	7.68	6.92	6.91	6.64	7.46	7.97	7.20	6.54	7.04	7.10	7.10	6.66
3	Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/l	1,640	1,671	2,367																		

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Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average 1-7	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average 8-14	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
<b>6.2 Treated Effluent Quality:</b>																							
1	pH	---	6.83	6.64	7.39	6.81	6.63	6.54	6.83	6.81	7.45	6.88	6.95	7.31	7.29	7.22	7.27	7.20	6.64	7.30	6.60	6.89	6.78
2	Biochemical Oxygen Demand (BOD5)	mg/l	7	7	6	9	5	9	5	7	6	9	9	7	6	6	6	7	6	9	8	5	9
3	Chemical Oxygen Demand (COD)	mg/l	52	85	50	53	77	56	82	65	90	64	78	84	73	81	80	79	76	77	77	78	81
4	Total Suspended Solids (TSS)	mg/l	8	8	7	10	6	10	6	8	7	10	10	8	7	7	7	8	7	10	9	6	10
5	Total Dissolve Solids (TDS)	mg/l	1,641	1,726	1,411	1,584	1,665	1,898	1,675	1,657	1,422	1,467	1,616	1,755	1,683	1,805	1,646	1,628	1,610	1,973	1,510	1,472	1,815

<b>8 HOUSEKEEPING:</b>																							
Sr. No.	Description	Unit	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	Weekly Average	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	Weekly Average	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
1	Hygienic Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
2	Cleanliness	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
3	Manpower Deployed	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
4	Safety Norms	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
5	Treatment Methodology	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
6	Storage Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

1 WASTE:																				
Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average 15-21		22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average 22-28		29-Feb	Weekly Average 29-31		Monthly Average 1-31	
<b>1.1 Input Waste:</b>																				
1	Type 1: Dry Waste	TPD	79.02	80.80	76.67	44.69%	85.21	71.13	86.90	80.72	82.12	75.71	91.42	81.89	46.02%	76.17	76.17	45.42%	77.52	45.05%
2	Type 2: Wet Waste	TPD	98.63	83.10	93.17	54.31%	92.48	91.57	104.21	94.97	92.03	93.83	88.67	93.97	52.81%	89.49	89.49	53.36%	92.37	53.68%
3	Type 3: Mixed Waste	TPD	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00%
4	Type 4: Tree Waste	TPD	1.85	0.58	1.71	1.00%	1.49	3.24	1.63	1.00	1.55	4.06	1.67	2.09	1.18%	2.04	2.04	1.22%	2.19	1.28%
5	<b>Total.....(1)+(2)+(3)+(4)</b>	<b>TPD</b>	<b>179.50</b>	<b>164.48</b>	<b>171.55</b>	<b>100.00%</b>	<b>179.18</b>	<b>165.94</b>	<b>192.74</b>	<b>176.69</b>	<b>175.70</b>	<b>173.60</b>	<b>181.76</b>	<b>177.94</b>	<b>100.00%</b>	<b>167.70</b>	<b>167.70</b>	<b>100.00%</b>	<b>172.09</b>	<b>100.00%</b>

- # **Note:**  
 1 **Type-I: Dry Waste:** This has 25-30% Organic and 70-75% Inorganic.  
 2 **Type-II: Wet Waste:** This has 65-70% Organic and 30-35%  
 3 **Type-I: Mixed Waste:** This has 45-50% Organic and 50-55% Inorganic.

Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average		22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average		29-Feb	Weekly Average		Monthly Average	
<b>1.2 Output Products:</b>																				
1	Organic Fraction	TPD	90.95	80.10	85.41	49.79%	85.48	79.53	97.19	86.25	85.29	86.25	85.33	86.47	48.60%	81.83	81.83	48.80%	84.03	48.83%
2	Inorganic Fraction:																			
	Recyclables	TPD	12.51	11.26	11.96	6.97%	13.02	11.55	14.83	13.35	12.59	12.31	12.46	12.87	7.24%	12.19	12.19	7.27%	12.38	7.19%
	RDF	TPD	71.49	69.98	69.95	40.78%	76.77	67.80	75.88	74.01	74.01	68.90	80.28	73.95	41.56%	69.22	69.22	41.28%	71.00	41.26%
	Bulking Material	TPD	2.70	2.56	2.52	1.47%	2.42	2.02	3.21	2.07	2.26	2.09	2.02	2.30	1.29%	2.42	2.42	1.44%	2.33	1.35%
	Inert	TPD	0.00	0.00	0.00	0.00%	0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.26	0.14%	0.00	0.00	0.00%	0.15	0.09%
3	Tree Waste	TPD	1.85	0.58	1.71	1.00%	1.49	3.24	1.63	1.00	1.55	4.06	1.67	2.09	1.18%	2.04	2.04	1.22%	2.19	1.28%
	<b>Total.....(1)+(2)+(3)</b>	<b>TPD</b>	<b>179.50</b>	<b>164.48</b>	<b>171.55</b>	<b>100%</b>	<b>179.18</b>	<b>165.94</b>	<b>192.74</b>	<b>176.69</b>	<b>175.70</b>	<b>173.60</b>	<b>181.76</b>	<b>177.94</b>	<b>100%</b>	<b>167.70</b>	<b>167.70</b>	<b>100%</b>	<b>172.09</b>	<b>100%</b>

2 RECYCLABLES:																				
Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average		22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average		29-Feb	Weekly Average		Monthly Average	
1	Glass	Kg	213	229	205		213	179	268	193	226	254	180	216		215	215		215	
2	Aluminum	Kg	142	115	127		178	98	115	158	122	153	126	136		149	149		131	
3	Metal	Kg	302	246	294		302	293	344	316	279	288	306	304		248	248		288	
4	Tetra Pack	Kg	178	98	136		178	98	191	88	157	136	162	144		149	149		132	
5	Hard Plastic	Kg	338	279	252		178	277	229	299	313	322	216	262		282	282		250	
6	PET	Kg	213	295	256		231	163	287	316	192	305	360	265		315	315		257	
7	Mixed Plastic	Kg	11,032	9,850	10,550		11,639	10,348	13,225	11,859	11,198	10,766	10,931	11,424		10,751	10,751		10,983	
8	Thermocol + Styrofoam	Kg	89	148	136		107	98	172	123	104	85	180	124		83	83		125	
9	Cloth + Rags + Textiles	Kg	888	1,344	1,195		1,404	1,139	1,089	1,616	1,480	1,475	1,639	1,406		878	878		1,316	
10	Leather + Rexine + Rubber	Kg	1,723	1,360	1,269		1,759	1,269	1,605	914	1,637	899	1,279	1,337		1,607	1,607		1,267	
11	Paper + Cardboard	Kg	1,208	1,115	1,145		1,191	1,139	1,319	1,195	1,132	1,085	1,081	1,163		1,143	1,143		1,117	
12	Coconut	Kg	1,492	1,442	1,377		1,226	879	1,892	878	1,132	1,000	936	1,135		1,276	1,276		1,213	

- # **Note:**  
 1 Item No. 9 (Cloth + Rags + Textiles) and 10 (Leather + Rexine + Rubber) are sent to Cement Plants as RDF.  
 2 Item No. 11 (Paper + Cardboard) and 12 (Coconut) are used as Bulking Material in Composting.

3 DISPOSAL OF INERT:																				
Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average		22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average		29-Feb	Weekly Average		Monthly Average	
1	<b>As per Tender:</b> Maximum 10% of Inerts of the Total Input Waste (excluding Mulched Tree Waste) as received in the Facility.																			
2	Input Waste	TPD	179.50	164.48	171.55		179.18	165.94	192.74	176.69	175.70	173.60	181.76	177.94		167.70	167.70		172.09	
3	Inert Fraction	TPD	0.00	0.00	0.00		0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.26		0.00	0.00		0.15	
4	% of Total Input Waste.....(3) ÷ (2)	%	0.00%	0.00%	0.00%		0.00%	1.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%		0.00%	0.00%		0.09%	

4 ELECTRICITY GENERATION:																				
Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average		22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average		29-Feb	Weekly Average		Monthly Average	
<b>3.1 Biogas Gensets:</b>																				
1	Biogas Genset-I: Running Time	hr/day	23.85	23.70	23.74		22.80	22.95	23.95	23.95	23.95	23.95	23.85	23.63		22.28	22.28		23.45	
2	Biogas Genset-I: Biogas Consumption	Nm <sup>3</sup> /day	2,288	2,269	2,272		2,153	2,195	2,291	2,300	2,307	2,304	2,294	2,263		2,162	2,162		2,237	
3	Biogas Genset-I: Energy Generation	kW.hr/day	3,870	3,890	3,893		3,650	3,660	3,930	3,880	3,920	3,920	3,860	3,831.43		3,826	3,826		3,867	
4	Biogas Genset-II: Running Time	hr/day	23.85	23.70	23.73		22.85	22.95	23.90	23.95	23.95	23.95	23.90	23.64		23.25	23.25		23.58	
5	Biogas Genset-II: Biogas Consumption	Nm <sup>3</sup> /day	2,117	2,102	2,104		1,996	2,030	2,116	2,133	2,121	2,124	2,113	2,090		2,046	2,046		2,084	
6	Biogas Genset-II: Energy Generation	kW.hr/day	3,870	3,860	3,869		3,650	3,660	3,920	3,910	3,930	3,920	3,900	3,841		3,764	3,764		3,857	
7	<b>Total Biogas Consumption = (2)+(5)</b>	<b>Nm<sup>3</sup>/day</b>	<b>4,405</b>	<b>4,371</b>	<b>4,375</b>		<b>4,149</b>	<b>4,225</b>	<b>4,407</b>	<b>4,433</b>	<b>4,428</b>	<b>4,428</b>	<b>4,407</b>	<b>4,354</b>		<b>4,207</b>	<b>4,207</b>		<b>4,322</b>	
8	<b>Total Energy Generation = (3)+(6)</b>	<b>kW.hr/day</b>	<b>7,740</b>	<b>7,750</b>	<b>7,761</b>		<b>7,300</b>	<b>7,320</b>	<b>7,850</b>	<b>7,790</b>	<b>7,850</b>	<b>7,840</b>	<b>7,760</b>	<b>7,673</b>		<b>7,590</b>	<b>7,590</b>		<b>7,723</b>	



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Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average 15-21	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average 22-28	29-Feb	Weekly Average 29-31	Monthly Average 1-31
<b>3.2 Electricity Generation:</b>																
1	<u>As per Tender:</u> Minimum electricity to be generated in the plant shall be 0.4 MW per 100 tons of Input Biodegradable Waste as received in the Facility.	MW/100 MT	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
2	Biodegradable Waste = 1.2.2	TPD	98.63	83.10	93.17	92.48	91.57	104.21	94.97	92.03	93.83	88.67	93.97	89.49	89.49	92.37
3	Guaranteed Electricity Generation = (3.2.2 x 3.2.1) ÷ 100	kW	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
4	Guaranteed Electricity Generation = 3.2.3 x 24 x 1000	kW.hr/day	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760
5	Available Electricity Generation = (A2 ÷ 24) + (A4 ÷ 24)	kW	323	323	323	304	305	327	325	327	327	323	320	316	316	322
6	Available Electricity Generation = 3.2.5 ÷ 100	MW/100 MT	0.54	0.54	0.54	0.51	0.51	0.55	0.54	0.55	0.54	0.54	0.53	0.53	0.53	0.54
			<b>1,980</b>	<b>1,990</b>		<b>1,540</b>	<b>1,560</b>	<b>2,090</b>	<b>2,030</b>	<b>2,090</b>	<b>2,080</b>	<b>2,000</b>		<b>1,830</b>		

<b>5 BIOGAS FLARE:</b>																
Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average 15-21	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average 22-28	29-Feb	Weekly Average 29-31	Monthly Average
1	Operation Time	hr/day	2.03	1.18	1.70	2.23	3.95	4.43	4.52	3.92	6.17	9.25	4.92	6.18	6.18	3.02
2	Biogas Flared	Nm <sup>3</sup> /day	457	266	383	502	889	997	1,016	881	1,388	2,081	1,108	1,391	1,391.18	680.42

<b>6 DIGESTERS:</b>																
Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average 15-21	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average 22-28	29-Feb	Weekly Average 29-31	Monthly Average
<b>5.1 Digester-I: Front End</b>																
1	pH	---	7.38	7.38	7.44	7.57	7.56	7.33	7.36		7.38	7.40	7.43	7.35	7.39	7.46
2	TSS	ppm	40,123	38,246	39,565	35,011	39,575	38,508	41,216		39,550	41,262	39,187	39,663	39,916	39,316
3	VSS	ppm	26,880	26,142	27,132	13,980	26,948	26,853	29,308		27,130	31,899	26,020	28,450	28,375	26,874
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,275	7,350	7,161	7,825	7,550	7,225	7,275		7,600	7,500	7,496	7,450	7,511	7,467
5	VFA	ppm as HAC	3,245	3,079	3,162	2,664	3,079	3,079	2,996		3,245	3,328	3,065	3,328	3,242	3,095
<b>5.2 Digester-I: Back End</b>																
1	pH	---	7.41	7.39	7.46	7.76	7.60	7.39	7.42		7.41	7.43	7.50	7.39	7.43	7.50
2	TSS	ppm	39,567	38,697	39,953	30,229	40,688	43,639	41,512		42,756	39,975	39,800	39,959	40,622	39,636
3	VSS	ppm	26,343	26,948	26,623	20,192	29,864	26,355	28,661		28,666	29,345	27,181	22,274	26,866	26,741
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,425	7,400	7,496	7,725	7,750	7,425	7,400		7,725	7,675	7,617	7,725	7,685	7,596
5	VFA	ppm as HAC	2,996	2,830	2,877	2,996	2,747	2,830	2,830		2,996	3,079	2,913	3,079	3,017	2,901
<b>5.3 Buffer Tank: Front End</b>																
1	pH	---	7.39	7.41	7.47	7.56	7.57	7.35	7.37		7.36	7.34	7.43	7.40	7.38	7.47
2	TSS	ppm	38,130	38,305	38,489	37,348	38,532	42,244	41,257		39,060	39,989	39,738	42,872	40,415	31,250
3	VSS	ppm	26,560	26,798	26,711	25,232	25,147	28,147	29,544		28,919	26,881	27,312	31,782	28,723	26,490
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,425	7,475	7,489	8,425	8,375	7,575	7,400		7,675	7,650	7,850	7,600	7,694	7,721
5	VFA	ppm as HAC	3,079	2,996	2,925	2,332	2,332	2,996	2,996		3,162	3,162	2,830	3,079	3,058	2,805
<b>5.4 Buffer Tank: Back End</b>																
1	pH	---	7.39	7.41	7.46	7.57	7.56	7.35	7.37		7.36	7.34	7.43	7.40	7.38	7.47
2	TSS	ppm	36,899	38,305	39,214	38,532	34,172	36,567	41,257		39,060	39,989	38,263	42,872	40,046	38,150
3	VSS	ppm	26,680	26,798	27,727	25,147	22,933	24,650	29,544		28,919	26,881	26,346	31,782	28,482	26,675
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,425	7,475	7,482	8,375	7,925	7,575	7,400		7,675	7,650	7,767	7,600	7,673	7,691
5	VFA	ppm as HAC	3,079	2,996	2,984	2,332	2,581	2,996	2,996		3,162	3,162	2,872	3,079	3,069	2,815
<b>5.5 Digester-II: Front End</b>																
1	pH	---	7.33	7.36	7.41	7.42	7.43	7.36	7.33		7.36	7.37	7.38	7.38	7.37	7.43
2	TSS	ppm	0	40,348	35,091	43,984	41,964	41,964	42,785		40,493	40,039	41,872	45,090	41,873	39,554
3	VSS	ppm	0	28,254	24,376	31,810	29,101	26,046	30,242		28,647	29,144	29,165	30,680	29,409	27,817
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,175	7,175	7,200	7,575	7,425	7,250	7,175		7,475	7,425	7,388	7,350	7,409	7,391
5	VFA	ppm as HAC	3,162	3,162	3,115	3,245	3,245	3,162	3,162		3,328	3,162	3,217	3,328	3,259	3,126
<b>5.6 Digester-II: Back End</b>																
1	pH	---	7.39	7.41	7.45	7.47	0.00	7.41	7.38		7.37	7.39	5.91	7.42	7.02	7.09
2	TSS	ppm	39,622	40,773	40,384	38,623	42,292	37,637	43,942		39,518	39,339	40,225	43,984	40,767	40,027
3	VSS	ppm	26,988	27,191	27,935	25,001	34,101	27,191	31,432		27,238	27,371	28,722	31,810	28,785	28,301
4	Total Alkalinity	ppm as CaCO <sub>3</sub>	7,350	7,250	7,375	7,675	7,425	7,350	7,350		7,600	7,625	7,504	7,575	7,576	7,562
5	VFA	ppm as HAC	2,913	3,079	3,008	2,913	2,830	2,996	2,913		3,162	3,162	2,996	3,245	3,141	2,978

<b>7 EFFLUENT TREATMENT PLANT:</b>																
Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average 15-21	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average 22-28	29-Feb	Weekly Average 29-31	Monthly Average
<b>6.1 Raw Effluent Quality:</b>																
1	Flow	m <sup>3</sup> /day	56.80	61.50	59.32	56.55	44.76	45.16	41.28		42.15	43.85	45.11	42.69	42.69	58.30
2	pH	---	7.89	6.26	6.94	6.13	7.75	7.05	6.58		7.46	7.21	7.12	6.44	6.44	6.98
3	Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/l	1,653	1,663	2,025	2,039	1,643	1,925	2,123		1,888	2,027	2,012	2,375	2,375	2,027
4	Chemical Oxygen Demand (COD)	mg/l	3,951	4,740	5,789	6,260	4,403	5,602	6,900		4,626	6,507	5,608	5,083	5,083	5,724
5	Total Suspended Solids (TSS)	mg/l	2,562	2,711	4,213	4,669	3,812	4,274	4,076		3,436	4,762	4,016	4,180	4,180	4,037
6	Total Dissolve Solids (TDS)	mg/l	1,534	1,648	1,611	1,476	1,584	1,630	1,745		1,329	1,457	1,572	1,519	1,519	1,574

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average 15-21	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average 22-28	29-Feb	Weekly Average 29-31	Monthly Average 1-31
<b>6.2 Treated Effluent Quality:</b>																
1	pH	---	7.31	7.32	6.98	7.32	7.08	6.69	6.58	6.77	6.66	6.87	6.85	7.47	7.47	6.98
2	Biochemical Oxygen Demand (BOD5)	mg/l	5	5	7	9	9	6	9	7	9	9	8	6	6	7
3	Chemical Oxygen Demand (COD)	mg/l	75	64	75	64	89	61	69	55	55	54	64	70	70	71
4	Total Suspended Solids (TSS)	mg/l	6	6	8	10	10	7	10	8	10	10	9	7	7	8
5	Total Dissolve Solids (TDS)	mg/l	1,580	1,780	1,677	1,476	1,584	1,777	1,780	1,342	1,559	1,960	1,640	1,595	1,595	1,649

<b>8 HOUSEKEEPING:</b>																
Sr. No.	Description	Unit	20-Feb	21-Feb	Weekly Average	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	Weekly Average	29-Feb	Weekly Average	Monthly Average
1	Hygienic Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
2	Cleanliness	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
3	Manpower Deployed	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
4	Safety Norms	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
5	Treatment Methodology	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
6	Storage Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted