

**Monthly Performance Report  
(HWT-NG100-MPR-14-R0)**

**September 2017  
(From 01/09/2017 to 30/09/2017)**

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

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

*Submitted To*  
**Department of Science & Technology (DS&T)  
&  
Goa State Infrastructural Development  
Corporation Limited (GSIDC)**

**Table – 1**  
**Summary of Overall Average Results for September 2017**  
*(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: <ol style="list-style-type: none"> <li>1. PET Bottles</li> <li>2. Mixed Plastic Articles</li> <li>3. Newspapers / other Paper Material</li> <li>4. Cardboard</li> <li>5. Styrofoam &amp; Thermocol</li> <li>6. Coconut Shells</li> <li>7. Clothes</li> <li>8. Rubber Articles</li> <li>9. Metal Articles &amp; Cans</li> <li>10. E-waste Articles and any Hazardous Waste</li> </ol>	13 numbers of fractions are being sorted daily from the input dry waste as received in the facility. The list of fractions are as follows: <ol style="list-style-type: none"> <li>1. Glass</li> <li>2. Metal Articles &amp; Cans</li> <li>3. Tetrapacks</li> <li>4. Paper / Cardboard</li> <li>5. Plastic Film</li> <li>6. Hard Plastics</li> <li>7. PET Bottles</li> <li>8. Styrofoam &amp; Thermocol</li> <li>9. Cloth / Rags / Textile</li> <li>10. Jute bags</li> <li>11. Leather / Rubber / Rexine</li> <li>12. Coconut Shells</li> <li>13. E-waste Articles and any Hazardous Waste</li> </ol>
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>115.675 TPD</b> . Quantum of Inert is <b>6.15 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>0.46</b> MW/100 tons of Input Biodegradable Waste as received in the Facility (in TPD).

Sr. No.	Parameter	Performance Standard As per Schedule – 7	Actual Performance at Plant (Monthly Average)										
4.	Biogas Flaring System	The Biogas Flaring System shall strictly be used only in case of emergency and not as a routine practice.	Biogas is being flared strictly, only under emergency and not as a routine practice. The average running time of Biogas Flaring System is <b>5.35 hours/day</b> .										
5.	Discharge of treated effluent conforming to regulatory norms	Effluent Treatment Plant shall be operated under all conditions.	<p>Effluent Treatment Plant is being operated continuously and is meeting all statutory conditions. The Treated Effluent Characteristics are as follows:</p> <table border="1" data-bbox="1032 726 1403 940"> <tbody> <tr> <td>pH</td> <td>7.02</td> </tr> <tr> <td>BOD</td> <td>7 mg/l</td> </tr> <tr> <td>COD</td> <td>73 mg/l</td> </tr> <tr> <td>TSS</td> <td>8 mg/l</td> </tr> <tr> <td>TDS</td> <td>1762 mg/l</td> </tr> </tbody> </table>	pH	7.02	BOD	7 mg/l	COD	73 mg/l	TSS	8 mg/l	TDS	1762 mg/l
pH	7.02												
BOD	7 mg/l												
COD	73 mg/l												
TSS	8 mg/l												
TDS	1762 mg/l												
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>										

#	Plant Performance Data: September 2017		
Sr. No.	Content	Month	Signature
1	Input Waste Composition	From 01.09.2017 To 30.09.2017	
2	Recyclables		
3	Electricity Generation		
4	Biogas Flare		
5	Effluent Treatment Plant		
6	Inert		
7	Housekeeping		



Sr. No.	Description	Unit	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	Weekly Average	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	Weekly Average
<b>B</b>	<b>Electricity Generation:</b>																	
1	<u>As per Tender:</u> Minimum electricity to be generated in the plant shall be 0.4 MW per per 100 tons of Input Biodegradable Waste as received in the Facility.																	
2	Biodegradable Waste.....1.B4	Tons	54.38	43.70	40.08	52.80	61.85	47.24	50.67	50.10	45.08	49.37	51.06	48.93	64.46	74.19	70.86	57.71
3	Electricity Generation required as per Tender.....0.4 x 1000 x B2/100	kWH	218	175	160	211	240	189	203	199	180	197	204	196	240	240	240	214
4	Electricity generated..... (A2/A1) + (A4/A3)	kWH	296	308	307	326	306	313	321	311	308	297	288	314	300	281	291	297

#### 4 BIOGAS FLARE:

Sr. No.	Description	Unit	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	Weekly Average	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	Weekly Average
2	Operation Time	hr/day	4.60	3.72	6.81	3.26	5.50	4.99	3.81	4.67	6.95	5.94	6.85	5.89	6.02	5.04	4.39	5.87

#### 5 EFFLUENT TREATMENT PLANT:

Sr. No.	Description	Unit	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	Weekly Average	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	Weekly Average
<b>A</b>	<b>Raw Effluent Quality:</b>																	
1	Flow	m <sup>3</sup> /day	54.41	42.80	41.65	43.61	59.73	45.99	51.74	48.56	53.86	44.15	52.79	59.07	55.43	49.54	59.14	53.43
2	pH	---	6.36	6.75	7.3	7.69	6.81	7.53	7.14	7.08	6.62	7.39	7.53	7.77	7.51	6.83	7.9	7.36
3	Biochemical Oxygen Demand (BOD5)	mg/l	1,951	2,024	1,777	2,491	2,492	1,663	1,551	1,993	1,587	1,972	1,599	1,504	1,737	1,559	1,564	1,646
4	Chemical Oxygen Demand (COD)	mg/l	4,214	6,821	6,006	7,274	5,208	4,340	5,289	5,593	5,396	5,522	3,486	5,114	4,742	4,178	3,378	4,545
5	Total Suspended Solids (TSS)	mg/l	3,629	4,028	3,749	3,861	5,682	2,877	3,722	3,935	2,682	3,905	2,686	2,978	3,839	3,757	3,159	3,287
6	Total Dissolve Solids (TDS)	mg/l	1,687	1,568	1,781	1,585	1,553	1,775	1,507	1,637	1,759	1,726	1,723	1,576	1,691	1,532	1,620	1,661
<b>B</b>	<b>Treated Effluent Quality:</b>																	
1	pH	---	7.05	7.23	6.96	6.77	6.81	7.34	6.69	6.98	7.44	6.79	7.04	7.16	6.87	6.63	7.18	7.02
2	Biochemical Oxygen Demand (BOD5)	mg/l	5	8	5	6	8	5	5	6	9	7	6	8	8	9	7	8
3	Chemical Oxygen Demand (COD)	mg/l	70	88	79	66	76	79	77	76	84	65	77	66	87	71	77	75
1	Total Suspended Solids (TSS)	mg/l	6	9	6	7	9	6	6	7	10	8	7	9	9	10	8	9
2	Total Dissolve Solids (TDS)	mg/l	1,839	1,646	1,941	1,633	1,600	1,917	1,582	1,737	1,847	1,830	1,844	1,671	1,860	1,655	1,636	1,763

#### 6 DISPOSAL OF INERT:

Sr. No.	Description	Unit	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	Weekly Average	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	Weekly Average
1	<u>As per Tender:</u> Maximum 10% of Inerts of the Total Input Waste (excluding Mulched Tree Waste) as received in the Facility.																	
2	Input Waste	TPD	111.52	87.18	85.64	112.30	115.43	93.88	103.56	101.36	96.80	103.14	96.89	107.53	123.02	125.42	119.00	110.26
3	Inert Fraction	Kg	4,561	5,449	4,864	4,717	6,487	6,074	4,702	5,265	5,440	4,786	4,408	5,258	5,007	5,493	6,462	5,265
4	% of Total Input Waste.....3/2	%	4.09%	6.25%	5.68%	4.20%	5.62%	6.47%	4.54%	5.26%	5.62%	4.64%	4.55%	4.89%	4.07%	4.38%	5.43%	4.80%

#### 7 HOUSEKEEPING:

Sr. No.	Description	Unit	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	Weekly Average	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	Weekly Average
1	Hygienic Conditions	---	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
3	Manpower Deployed	---	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
5	Treatment Methodology	---	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



Sr. No.	Description	Unit	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	Weekly Average	22-Sep	23-Sep	24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	Weekly Average
<b>B</b>	<b>Electricity Generation:</b>																	
1	<u>As per Tender:</u> Minimum electricity to be generated in the plant shall be 0.4 MW per per 100 tons of Input Biodegradable Waste as received in the Facility.																	
2	Biodegradable Waste.....1.B4	Tons	70.63	71.83	70.74	80.49	76.20	70.10	74.62	73.52	64.66	74.23	63.45	67.45	68.28	71.62	67.01	68.10
3	Electricity Generation required as per Tender.....0.4 x 1000 x B2/100	kWH	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240
4	Electricity generated..... (A2/A1) + (A4/A3)	kWH	313	278	301	312	312	317	239	296	289	287	283	299	307	293	251	287

#### 4 BIOGAS FLARE:

Sr. No.	Description	Unit	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	Weekly Average	22-Sep	23-Sep	24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	Weekly Average
2	Operation Time	hr/day	5.70	3.05	5.11	4.87	6.50	4.25	5.83	5.04	3.15	4.89	3.68	6.69	7.05	6.17	5.41	5.29

#### 5 EFFLUENT TREATMENT PLANT:

Sr. No.	Description	Unit	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	Weekly Average	22-Sep	23-Sep	24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	Weekly Average
<b>A</b>	<b>Raw Effluent Quality:</b>																	
1	Flow	m <sup>3</sup> /day	50.95	49.24	48.85	49.24	47.90	54.75	59.92	51.55	41.91	42.82	42.39	44.13	51.71	46.96	41.25	44.45
2	pH	---	7.04	7.54	7.39	6.96	7.58	6.02	7.8	7.19	7.47	7	6.39	7.79	6.2	6.25	7.47	6.94
3	Biochemical Oxygen Demand (BOD5)	mg/l	2,408	2,039	1,972	2,297	1,644	2,012	1,639	2,002	1,684	2,137	1,874	2,076	1,794	2,319	1,619	1,929
4	Chemical Oxygen Demand (COD)	mg/l	6,285	4,873	4,950	4,824	4,620	5,211	3,671	4,919	5,136	6,454	4,779	4,982	3,875	5,171	3,999	4,914
5	Total Suspended Solids (TSS)	mg/l	5,298	4,527	4,555	5,099	3,091	4,768	3,622	4,423	3,233	4,338	3,092	4,879	3,122	3,594	3,724	3,712
6	Total Dissolve Solids (TDS)	mg/l	1,527	1,757	1,684	1,709	1,766	1,569	1,680	1,670	1,699	1,588	1,587	1,698	1,783	1,752	1,631	1,677
<b>B</b>	<b>Treated Effluent Quality:</b>																	
1	pH	---	7.35	7.01	6.73	7	6.97	7.13	6.56	6.96	6.65	6.73	7.46	7.42	6.87	6.58	7.29	7.00
2	Biochemical Oxygen Demand (BOD5)	mg/l	6	8	9	9	6	7	6	7	8	5	8	7	6	9	5	7
3	Chemical Oxygen Demand (COD)	mg/l	72	73	85	72	72	62	63	71	80	64	66	63	63	84	62	69
1	Total Suspended Solids (TSS)	mg/l	7	9	10	10	7	8	7	8	9	6	9	8	7	10	6	8
2	Total Dissolve Solids (TDS)	mg/l	1,558	1,898	1,802	1,760	1,854	1,663	1,798	1,762	1,699	1,667	1,682	1,800	1,854	1,787	1,745	1,748

#### 6 DISPOSAL OF INERT:

Sr. No.	Description	Unit	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	Weekly Average	22-Sep	23-Sep	24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	Weekly Average
1	<u>As per Tender:</u> Maximum 10% of Inerts of the Total Input Waste (excluding Mulched Tree Waste) as received in the Facility.																	
2	Input Waste	TPD	119.31	128.38	110.18	140.91	135.74	119.23	124.69	125.49	119.33	132.87	105.42	123.89	115.62	122.42	117.64	119.60
3	Inert Fraction	Kg	5,130	7,664	5,035	9,046	6,312	7,249	7,456	6,842	7,685	6,006	4,607	7,161	6,267	5,521	4,976	6,032
4	% of Total Input Waste.....3/2	%	4.30%	5.97%	4.57%	6.42%	4.65%	6.08%	5.98%	5.42%	6.44%	4.52%	4.37%	5.78%	5.42%	4.51%	4.23%	5.04%

#### 7 HOUSEKEEPING:

Sr. No.	Description	Unit	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	Weekly Average	22-Sep	23-Sep	24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	Weekly Average
1	Hygienic Conditions	---	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
3	Manpower Deployed	---	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
5	Treatment Methodology	---	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



### 1 INPUT WASTE COMPOSITION:

Sr. No.	Description	Unit	29-Sep	30-Sep	Weekly Average		Monthly Average	
<b>A</b>	<b>Input Waste:</b>							
1	Dry Waste	TPD	4.070	2.250	3.160	0.03	4.443	3.87%
2	Wet Waste	TPD	37.750	33.300	35.525	0.29	32.196	27.45%
3	Mixed Waste	TPD	79.620	79.920	79.770	0.66	76.709	66.66%
4	Mulched Tree Waste	TPD	5.860	0.570	3.215	0.03	2.327	2.02%
5	<b>Total.....1+2+3+4</b>	<b>TPD</b>	<b>127.300</b>	<b>116.040</b>	<b>121.670</b>	<b>1.000</b>	<b>115.675</b>	<b>100%</b>
<b>B</b>	<b>Input Waste Composition:</b>							
1	<b>Organic / Bio degradable Fraction</b>	<b>65.00%</b>	<b>70.23</b>	<b>65.35</b>	<b>67.79</b>	<b>55.72%</b>	<b>63.44</b>	<b>54.60%</b>
2	<b>Inorganic / Non-recyclable Fraction (RDF)</b>		<b>29.32</b>	<b>29.21</b>	<b>29.26</b>	<b>24.05%</b>	<b>30.41</b>	<b>26.56%</b>
3	<b>Recyclables</b>	<b>14.00%</b>	<b>19.58</b>	<b>14.95</b>	<b>17.26</b>	<b>14.19%</b>	<b>15.67</b>	<b>13.54%</b>
	Glass	0.05-0.1% 0.50%	0.08	0.12	0.10	0.08%	0.09	0.07%
	Metal	0.3-0.5% 0.50%	0.52	0.58	0.55	0.45%	0.46	0.40%
	Paper / Cardboard / Tetrapack	1.5-3.0% 4.00%	3.68	2.12	2.90	2.38%	2.71	2.34%
	Mixed Plastic, Bottles, Cups, Food Packets, Coated Plastics	3.5- 7.5% 6.00%	8.49	6.56	7.52	6.18%	6.46	5.58%
	Thermocoal / Styrofoam	0.05-0.1% 1.00%	0.11	0.09	0.10	0.09%	0.09	0.08%
	Cloth / Rags / Textiles	1.0-2.5% 1.50%	2.04	2.23	2.13	1.75%	2.35	2.03%
	Rubber Items	0.25-0.5% 0.50%	0.45	0.43	0.44	0.36%	0.46	0.40%
	Coconut	1.5-3.5%	4.21	2.82	3.52	2.89%	3.06	2.64%
4	<b>Inert</b>	<b>10.00%</b>	<b>8.17</b>	<b>6.53</b>	<b>7.35</b>	<b>6.04%</b>	<b>6.15</b>	<b>5.30%</b>
5	<b>Mulched Tree Waste</b>	<b>11.00%</b>	<b>5.86</b>	<b>0.57</b>				
	<b>Total.....1+2+3+4+5</b>	<b>100.00%</b>				<b>100.00%</b>		<b>100.00%</b>

### 2 RECYCLABLES:

Sr. No.	Description	Unit	29-Sep	30-Sep	Weekly Average		Monthly Average	
1	Glass	Kg	76	116	96		86	
2	Metal	Kg	522	580	551		461	
3	Tetrapack	Kg	202	117	160		124	
4	Paper / Cardboard	Kg	3,477	2,007	2,742		2,581	
	<b>Total.....3+4</b>	<b>Kg</b>	<b>3,679</b>	<b>2,124</b>	<b>2,902</b>		<b>2,705</b>	
5	Plastic Films	Kg	7,268	5,684	6,476		5,515	
6	Hard Plastic	Kg	526	538	532		473	
7	Pet	Kg	696	334	515		469	
	<b>Total.....5+6+7</b>	<b>Kg</b>	<b>8,490</b>	<b>6,556</b>	<b>7,523</b>		<b>6,457</b>	
8	Thermocal	Kg	115	93	104		90	
9	Cloth / Rags / Textile	Kg	1,481	1,620	1,551		1,793	
10	Jute Bags	Kg	556	608	582		556	
	<b>Total.....9+10</b>	<b>Kg</b>	<b>2,037</b>	<b>2,228</b>	<b>2,133</b>		<b>2,348</b>	
11	Leather / Rubber / Rexine	Kg	446	429	438		458	
12	Coconut	Kg	4,214	2,820	3,517		3,063	
13	<b>Total</b>	<b>Kg</b>	<b>19,579</b>	<b>14,946</b>	<b>17,263</b>		<b>15,668</b>	
		<b>TPD</b>	<b>19.58</b>	<b>14.95</b>	<b>17.26</b>		<b>15.67</b>	

### 3 ELECTRICITY GENERATION:

Sr. No.	Description	Unit	29-Sep	30-Sep	Weekly Average		Monthly Average	
<b>A</b>	<b>Biogas Gensets:</b>							
1	Biogas Genset-I: Running Time	hr	23.50	23.50	23.50		22.38	
2	Biogas Genset-I: Energy Generation	kW.hr	3,090	3,040	3,065		3,184	
3	Biogas Genset-II: Running Time	hr	14.050	8.350	11.20		19.53	
4	Biogas Genset-II: Energy Generation	kW.hr	1,740	1,340	1,540		2,947	
5	<b>Total.....2+4</b>	<b>kW.hr</b>	<b>4,830</b>	<b>4,380</b>	<b>4,605</b>		<b>6,131</b>	

Sr. No.	Description	Unit	29-Sep	30-Sep	Weekly Average	Monthly Average
<b>B</b>	<b>Electricity Generation:</b>					
1	<u>As per Tender:</u> Minimum electricity to be generated in the plant shall be 0.4 MW per per 100 tons of Input Biodegradable Waste as received in the Facility.					
2	Biodegradable Waste.....1.B4	Tons	70.23	65.35	67.79	63.44
3	Electricity Generation required as per Tender.....0.4 x 1000 x B2/100	kWH	240	240	240	227
4	Electricity generated..... (A2/A1) + (A4/A3)	kWH	255	290	273	293

#### 4 BIOGAS FLARE:

Sr. No.	Description	Unit	29-Sep	30-Sep	Weekly Average	Monthly Average
2	Operation Time	hr/day	4.97	6.78	5.88	5.35

#### 5 EFFLUENT TREATMENT PLANT:

Sr. No.	Description	Unit	29-Sep	30-Sep	Weekly Average	Monthly Average
<b>A</b>	<b>Raw Effluent Quality:</b>					
1	Flow	m <sup>3</sup> /day	48.53	43.40	45.97	48.79
2	pH	---	7.32	7.67	7.50	7.21
3	Biochemical Oxygen Demand (BOD5)	mg/l	1,544	2,382	1,963	1,906
4	Chemical Oxygen Demand (COD)	mg/l	4,169	6,979	5,574	5,109
5	Total Suspended Solids (TSS)	mg/l	3,628	5,717	4,673	4,006
6	Total Dissolve Solids (TDS)	mg/l	1,703	1,665	1,684	1,666
<b>B</b>	<b>Treated Effluent Quality:</b>					
1	pH	---	7.02	7.22	7.12	7.02
2	Biochemical Oxygen Demand (BOD5)	mg/l	8	6	7	7
3	Chemical Oxygen Demand (COD)	mg/l	83	60	72	73
1	Total Suspended Solids (TSS)	mg/l	9	7	8	8
2	Total Dissolve Solids (TDS)	mg/l	1,822	1,782	1,802	1,762

#### 6 DISPOSAL OF INERT:

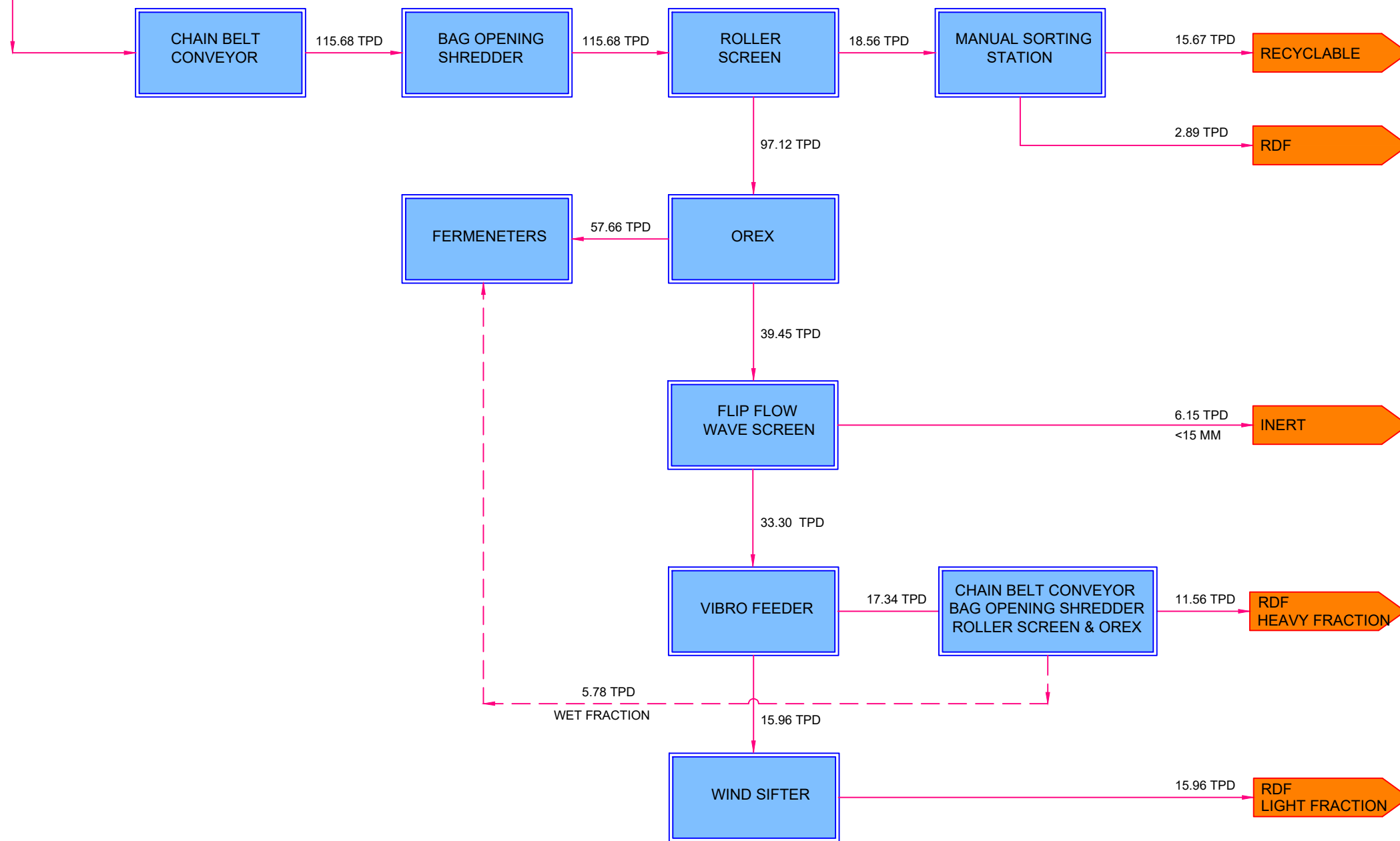
Sr. No.	Description	Unit	29-Sep	30-Sep	Weekly Average	Monthly Average
1	<u>As per Tender:</u> Maximum 10% of Inerts of the Total Input Waste (excluding Mulched Tree Waste) as received in the Facility.					
2	Input Waste	TPD	127.30	116.04	121.67	115.68
3	Inert Fraction	Kg	8,173	6,533	7,353	6,151
		TPD	8.17	6.53	7.35	6.15
4	% of Total Input Waste.....3/2	%	6.42%	5.63%	6.03%	5.31%

#### 7 HOUSEKEEPING:

Sr. No.	Description	Unit	29-Sep	30-Sep	Weekly Average	Monthly Average
1	Hygienic Conditions	---	Accepted	Accepted	Accepted	Accepted
2	Cleanliness	---	Accepted	Accepted	Accepted	Accepted
3	Manpower Deployed	---	Accepted	Accepted	Accepted	Accepted
4	Safety Norms	---	Accepted	Accepted	Accepted	Accepted
5	Treatment Methodology	---	Accepted	Accepted	Accepted	Accepted
6	Storage Conditions	---	Accepted	Accepted	Accepted	Accepted

INPUT WASTE		
SR. NO.	NAME	WEIGHT (TPD)
1	RECYCLABLES	15.67
2	RDF	30.41
3	WET FRACTION	63.44
4	INERT	6.15
TOTAL		115.68

NUMBER OF RECYCLABLE FRACTIONS		
SR. NO.	NAME	WEIGHT (KG)
01	GLASS	86
02	METALS	461
03	TETRAPACK	124
04	PAPER/CARDBOARD	2581
05	PLASTIC FILM	5515
06	HARD PLASTIC	473
07	PET	469
08	THERMOCAL	90
09	CLOTH/RAGS/TEXTILE	17938
10	JUTE BAGS	556
11	LEATHER/RUBBER/REXINE	459
12	COCONUT	3063
TOTAL		15668



OWNER: .  
 DEPARTMENT OF SCIENCE, TECHNOLOGY & ENVIRONMENT.  
 THE MANAGING ASSOCIATE:  
 GOA STATE INFRASTRUCTURE DEVELOPMENT LTD.  
 CONTRACTOR:  
 M/s HINDUSTAN WASTE TREATMENT PVT. LTD.

	NAME	SIGN	DATE
DRWN	CS		03/10/17
DSGN	SG		03/10/17
CHKD	SG		03/10/17
APPD	GK		03/10/17

TITLE :  
 ANNEXURE -1  
 MASS BALANCE  
 SEPTEMBER 2017

SCALE  
 NTS  
 SIZE  
 A3  
 REV.  
 R0