

Reference No: MARIDI/2019-20/ADS/01

Date: 24-04-2019

To

The Member Secretary

Expert Appraisal Committee (Infra-2)

Ministry of Environment, Forest and Climate Change

Indira Paryavaran Bhavan, Jor Bagh Road

New Delhi – 110003

Subject: **Submission of Additional Details** – Common Hazardous Waste and Bio-Medical Waste Treatment Facility at Harohalli Industrial Area - 2nd Phase, Harohalli Village, Ramanagara District, Karnataka by M/s. Maridi Eco Industries Private Limited

Reference: 1. Minutes of 39th EAC (Infra-2) Meeting held on 28-03-2019 – Agenda Item No. 39.5.6.
2. File No: F.No.10-2/2018-IA-III
3. Proposal No: IA/KA/MIS/71634/2017

Respected Sir,

With reference to the additional details sought through minutes of meeting vide reference no. 1 above, we hereby provide the following additional details for your kind consideration.

1. Submit closure plan for the existing site.

Closure plan for the existing site has been enclosed as **Attachment – 1** to this letter.

2. Submit revised water balance for the proposed project.

Water balance for the proposed project has been enclosed as **Attachment – 2** to this letter.

3. Submit CER plan for the proposed project.

CER plan for the proposed project has been enclosed as **Attachment – 3** to this letter.

We request you to kindly consider our project in the forthcoming EC meeting.

Yours Faithfully,

For Maridi Eco Industries Pvt. Ltd.

Authorized Signatory



Attachment – 1

Closure Plan for the Existing Site

Plan for Closure of Existing Common Bio-Medical Waste Treatment Facility at Gabbadi Kaval, Harohalli, Kanakapura Taluk, Ramanagara District, Karnataka

1. Introduction

Maridi Eco Industries Private Limited has been operating a Common Bio-Medical Waste Treatment Facility (CBMWTF) at Gabbadi Kaval, Harohalli, Kanakapura Taluk, Ramanagara District since 2001. This facility has been providing bio-medical waste treatment and disposal services to health care establishments from Bengaluru rural, Bengaluru urban, Mandya and Ramanagara Districts. This facility has consent to operate (CFO) valid up to December 31, 2019 (copy of CFO enclosed for reference).

Considering the increase in waste generation quantity over the years and to adopt modern technology, Maridi proposes to '*close the existing facility*' and to '*establish a new facility*' at KIADB Harohalli Industrial Area Phase – II, Ramanagara District, Karnataka. Location for the proposed new facility has strategically been selected considering the following: (a) site within an industrial area with environmental clearance; and (b) the proposed site located less than 10 km from the existing facility.

The closure plan for the existing facility has been devised to ensure smooth transition, without causing interruption of services to the customers/health care establishments, and without compromising on the regulatory compliance and waste treatment operations.

2. Timeline for Closure of Existing Facility

It is proposed to initiate the process of closure of existing facility only after obtaining necessary approvals for the proposed new facility, including: (a) environmental clearance; (b) consent for establishment; (c) consent for operation; and (d) authorization from state pollution control board for operating a facility for collection, reception, treatment, storage, transport and disposal of biomedical wastes and also authorization for hazardous waste.

It is estimated that it will take up to **nine months (after obtaining environmental clearance from MoEFCC)** for the new facility to become operational with all the approvals. The time period of one year has been estimated based on the timeline listed in **Table 1** below.

Table 1: Estimated Timeline for the New Facility to Start Operations after obtaining EC

No	Milestone	Estimated Time
1	Consent for Establishment (CFE)	30 days from the date of obtaining EC
2	Establishment of the New Facility	180 days (6 months) from the date of obtaining CFE
3	Consent for Operation (CFO)	30 days from the completion of establishment of the new facility in compliance with EC and CFE.
4	Bio-Medical Waste and Hazardous Waste Authorization	15 days from the date of obtaining CFO

It is proposed that the waste will not be accepted at the existing facility as soon as the new facility becomes operational with all the approvals in place. CFO shall be renewed for the existing facility until the new facility becomes operational. Closure of the existing facility shall be initiated only after giving due information to the State PCB.

3. Equipment Decommissioning and Demolition of the Existing Facility

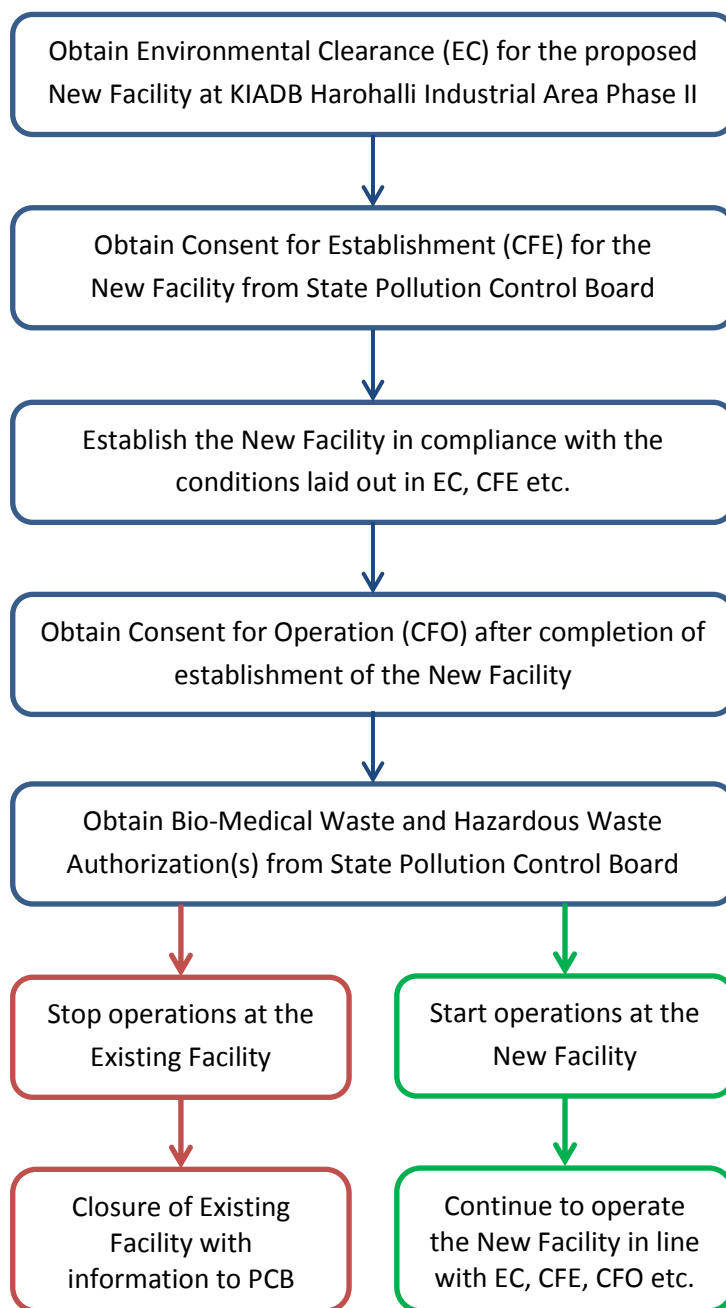
It is proposed not to utilize any equipment (including incinerator, autoclave, shredder, pumps etc.) from the existing facility at the new facility. The proposed new facility will be established with new equipment only. Considering the age of the equipment, it is proposed to decommission the equipment and to sell the material to authorized scrap dealers. Waste fractions generated during decommissioning shall be disposed of appropriately at TSDF. Some parts of the equipment in good condition may be retained for utilization as spares.

The existing facility/sheds shall be demolished by a professional demolition company, with due care taken not to cause air pollution etc. The demolition waste shall be disposed of in compliance with the Construction and Demolition Waste Management Rules, 2016 and its subsequent amendments. After the demolition and clearing up of site, if any contamination is found on the ground, then the top soil may be removed to a shallow depth and disposed of at the TSDF. The removed soil may then be replaced with borrow soil.

It is estimated that the 'Closure', including equipment decommissioning and removal of equipment and demolition of the facility/shed, it will take **up to 2 months** from initiating the closure. After the closure of the facility in all aspects, the site may be used either for residential purpose or for commercial warehouse purpose or for any other purpose, after obtaining all necessary approvals.

The process for establishment of new facility and closure of existing facility is summarized in the figure below.

Figure 1. **Flow Chart indicating the steps involved in Establishment of New Facility and Closure of Existing Facility**





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Karnataka State Pollution Control Board

"ಪರಿಸರಭವನ", 1 ರಿಂದ 5ನೇ ಮಹಡಿಗಳು, ನಂ.49, ಚರ್ಚ್‌ಸ್ಟ್ರೀಟ್, ಬೆಂಗಳೂರು - 560 001, ಕರ್ನಾಟಕ, ಭಾರತ

"Parisara Bhavana", 1st to 5th Floor, # 49, Church Street, Bengaluru - 560 001, Karnataka, INDIA

No. PCB/1120/BMW/2016 4807

Date: 18 DEC 2018

CORRIGENDUM

Sub:- Corrigendum to the CFO issued under Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act 1981 and authorization under Bio-Medical Rules, 2016 in respect of M/s. Maridi Eco Industries, (CBMWTF), Sy. No. 1/37 & 1/38, Kanakapura Road, 35th Milestone, Gabbadi Kaval, Harohalli, Kanakapura Tq., Ramanagar Dist. - reg.

- Ref:-**
1. Combined Consent order No. AW-303515, PCB Id: 22749, Dt: 29.08.2017.
 2. Authorization under Bio-Medical Rules, 2016 No: PCB/01/BMW-11/Reg. No. 145018/OB/227, dated: 18.06.2018.
 3. Representation submitted by CBMWTF to Board vide No. Maridi/KSPCB/HO/2018-19/0018, dated: 30.11.2018.

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The Board had issued CFO under Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act 1981 and authorization under Bio-Medical Rules, 2016 in respect of M/s. Maridi Eco Industries, (CBMWTF), Sy. No. 1/37 & 1/38, Kanakapura Road, 35th Milestone, Gabbadi Kaval, Harohalli, Kanakapura Tq., Ramanagar Dist. for the period upto 31.12.2018 vide ref (1) & (2) with a condition to shift the CBMWTF to new location with prior approval from competent authorities.

The CBMWTF authorities vide ref(3), have requested the Board to extend the validity of the CFO issued under Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act 1981 and authorization under Bio-Medical Rules, 2016 upto 31.12.2019 as they are in the process of obtaining Environmental Clearance (EC) for their newly proposed plant at Plot No. 312-A2 & 312-A2 (Part), 2nd Phase, Harohalli Industrial Area, Harohalli Village, Kanakapura Tq., Ramanagar Dist.

Further, the CBMWTF authorities have stated in their letter vide ref (3) that Public Hearing has been conducted on 19.11.2018 at scheduled project site in the presence of Additional District Commissioner, Ramanagar, Senior Environmental Officer (South) and Environmental Officer, Ramanagar and construction of the new project will commence once they obtain Environmental Clearance and Consent for establishment.

Considering the request made by the CBMWTF authorities and in addition to the proceedings of the CCM held on 09.01.2018 the following Corrigendum is issued. Hence, the order;

CORRIGENDUM

The Consent for Operation (CFO) issued under Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act 1981 and authorization under Bio-Medical Rules, 2016 in respect of M/s. Maridi Eco Industries, (CBMWTF), Sy. No. 1/37 & 1/38, Kanakapura Road, 35th Milestone, Gabbadi Kaval, Harohalli, Kanakapura Tq., Ramanagar Dist. is extended upto 31.12.2019.

All other terms and conditions mentioned in the CFO and authorization cited under ref (1) & (2) remain same and unaltered.

Sd/-

SENIOR ENVIRONMENTAL OFFICER

To,

The Authorized Signatory

M/s. Maridi Eco Industries, (CBMWTF),

Sy. No. 1/37 & 1/38, 35th Milestone

Kanakapura Road, Gabbadi Kaval, Harohalli,

Kanakapura Tq., Ramanagar Dist

Copy to:

1. Regional Officer, (Ramanagar) for information and necessary action.

~~2. Case file.~~


SENIOR ENVIRONMENTAL OFFICER


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Karnataka State Pollution Control Board

"ಪರಿಸರಭವನ", 1 ರಿಂದ 5ನೇ ಮಹಡಿಗಳು, ನಂ.49, ಚರ್ಚ್‌ಸ್ಟ್ರೀಟ್, ಬೆಂಗಳೂರು - 560 001, ಕರ್ನಾಟಕ, ಭಾರತ
"Parisara Bhavana", 1st to 5th Floor, # 49, Church Street, Bengaluru - 560 001, Karnataka, INDIA

No. PCB/1120/BMW /2016 5890

Date: 30 JAN 2018

ADDENDUM TO THE CONSENT ISSUED UNDER THE WATER(PREVENTION
AND CONTROL OF POLLUTION) ACT, 1974 AND UNDER THE AIR
(PREVENTION AND CONTROL OF POLLUTION) ACT, 1981.

ರವಾನಿಷ್ಠಾಪನಾ

Sub.: Issue of Addendum to the Combined Consent Order issued under Water & Air Acts to M/s. Maridi Eco Industries., (CBMWTF), Sy.No. 1/37 & 1/38, Kanakapura Road, 35th Milestone, Gabbadi Kaval, Harohalli, Kanakapura Taluk, Ramanagara-reg.

Ref.:

1. Proceedings of 110th Consent Committee Meeting held on 31.07.2017.
2. Board office issued Combined Consent Order No. AW-303515, PCB ID: 22749, Dt: 29.08.2017.
3. Letter from facility authority dt: 03.01.2018.
4. Proceedings of 123rd Consent Committee Meeting held on 09.01.2018.

In the proceedings of 110th Consent Committee Meeting held on 31.07.2017 vide reference(1), the committee recommended to issue CFO under Water & Air Acts for the period from 01.07.2016 to 31.01.2018 with conditions since the industry is directed to shift to designated industrial area.

Further, Board has issued Combined Consent under Water & Air Acts to M/s. Maridi Eco Industries, (CBMWTF), Sy.No. 1/37 & 1/38, Kanakapura Road, 35th Milestone, Gabbadi Kaval, Harohalli, Kanakapura Taluk, Ramanagara District to operate CBMWTF for a period upto 31.01.2018 vide reference(2). However, facility authorities have submitted letter on 03.01.2018 intimating that, they have taken land at Harohalli Industrial Area, KIADB, Phase-II & have also applied for Environmental Clearances for the Site at MOEF at Delhi on 16.12.2017 & obtained TOR Acknowledgement. Further, requested the Board to extend consent for next 12 months by considering Consent fee of Rs. 90,000/- paid during previous year.

Further, the subject of issue of extension of CFO was placed in 123rd Consent Committee Meeting held on 09.01.2018 vide ref (4), committee recommended to extend the CFO Validity under Water & Air Acts for the period upto 31.12.2018, industry to apply for CFE for the new location once EC is obtained.

Hence, the following order.

ADDENDUM

In the Combined Consent Order issued under Water & Air Acts to M/s. Maridi Eco Industries., (CBMWTF), Sy.No. 1/37 & 1/38, Kanakapura Road, 35th Milestone, Gabbadi Kaval, Harohalli, Kanakapura Taluk, Ramanagara vide reference (2), the consent validity shall be read as 31.12.2018 instead of 31.01.2018.

All other terms and conditions in consent order issued vide reference (2) remains same and unaltered.

FOR AND BEHALF OF
KARNATAKA STATE POLLUTION CONTROL BOARD

Sd/-
SENIOR ENVIRONMENTAL OFFICER

To,
The Occupier,
M/s. Maridi Eco Industries., (CBMWTF),
Sy.No. 1/37 & 1/38, Kanakapura Road,
35th Milestone, Gabbadi Kaval, Harohalli,
Kanakapura Taluk, Ramanagara

Copy to:

- 1) The Regional Officer, Ramanagara for information & necessary action.
- 2) Case file.


SENIOR ENVIRONMENTAL OFFICER
(WMC)

Attachment – 2

Water Balance

Revised Water Balance

The total water requirement for the proposed facility is about 320 KLD. The net fresh water requirement is only about 80 KLD, which will be met through KIADB industrial water supply. In a rare case, on certain days, if KIADB cannot supply water, then water will be obtained through external tankers.

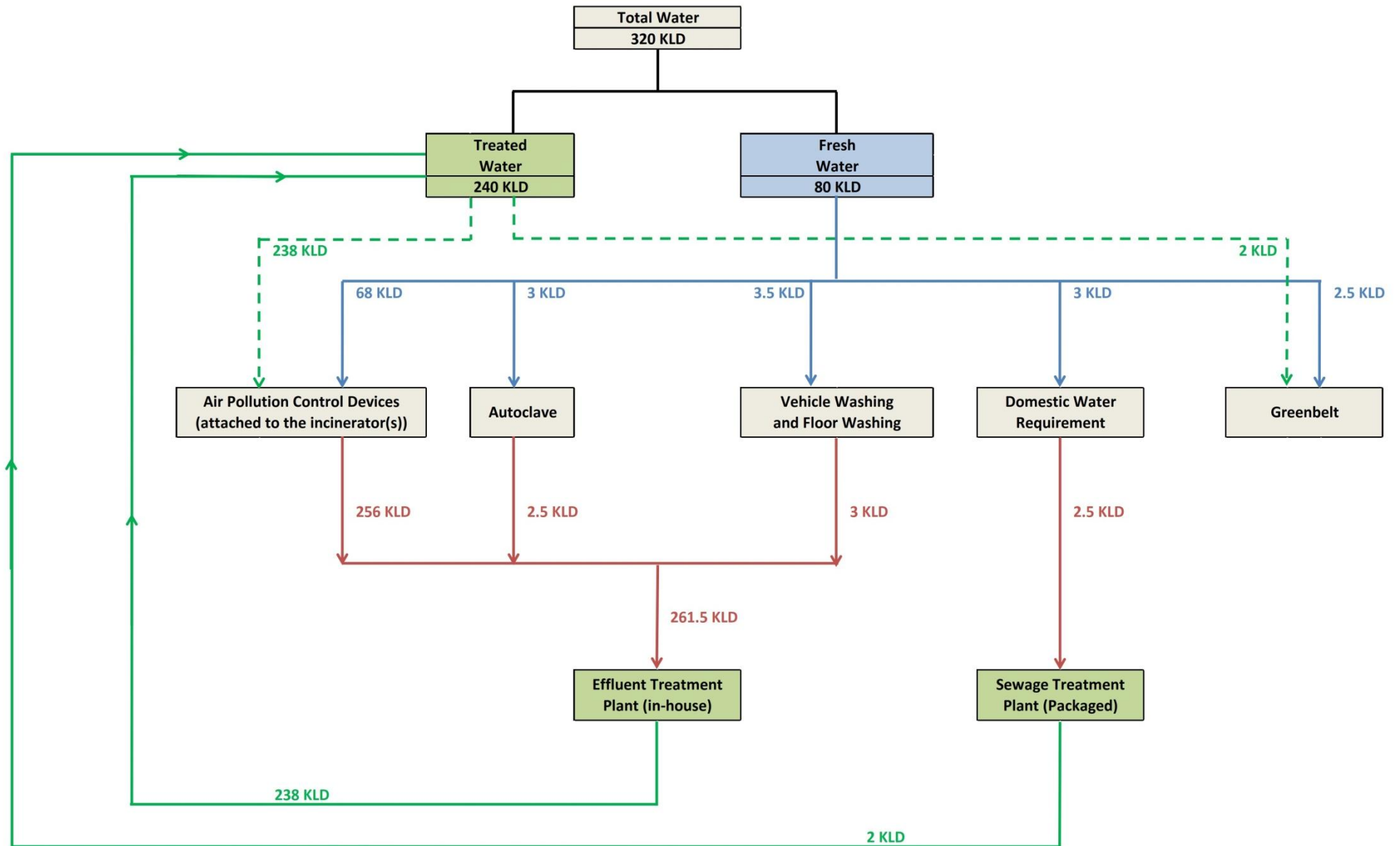
Zero Liquid Discharge (ZLD) system has been proposed to be adopted at the facility. It is estimated that the total wastewater generation will be about 264 KLD (including domestic wastewater). Wastewater generated from air pollution control devices attached to the incinerator(s), vehicle and container washing, floor washing etc. shall be treated in the in-house Effluent Treatment Plant (with treatment capacity of up to 300 KLD). The treated waste water shall be continuously recirculated to fulfil the water requirement of APCDs.

Domestic wastewater (estimated to be about 2.5 KLD) shall be treated in a packaged Sewage Treatment Plant (with treatment capacity of up to 3 KLD) and the treated water shall be used for greenbelt development. No treated wastewater shall be let out of the premises. Water requirement and wastewater generation details are presented in **Table – 1** below. The water balance is presented in **Figure – 1** in the next page.

Table 1. Water Requirement and Wastewater Generation Details

Activity	Fresh Water (KLD)	Waste Water (KLD)	Treated Water for Reuse (KLD)	Total Water (KLD)	Remarks
Air Pollution Control Devices attached to the Incinerators	68	256	238	306	Wastewater to ETP. Treated water to be utilized in APCDs attached to Incinerator
Autoclave	3	2.5	0	3	
Floor Wash, Vehicle Wash etc.	3.5	3	0	3.5	
Domestic Water Usage	3	2.5	0	3	Wastewater to Packaged STP. Treated water to be utilized for Greenbelt.
Greenbelt	2.5	0	2	4.5	-
Total	80	264	240	320	

Figure 1: Water Balance



Legend:

- Fresh Water
- Wastewater
- Treated Water for Reuse

Attachment – 3

CER Plan

CER Plan

It is proposed to earmark a fund of **Rs. 30 Lakhs (2% of the project cost)** towards Corporate Environment Responsibility (CER). The CER fund allocation is in line with the recommendation made in MoEF&CC office memorandum vide F.No.22-65/2017-IA.III dated 1st May 2018. Social development and welfare measures proposed under CER activities in the surrounding villages towards development of education, healthcare and infrastructure facilities are given in **Table – 1** below along with corresponding budget allocation. In addition to the CER, it is proposed to allot 2% of the annual profit towards Corporate Social Responsibility (CSR).

Table 1: Proposed CER Activities and its Budget

S. No	Activities	Details	Budget Allocation (in Rs. Lakhs)
1	Health Checkups	Health checkup for communities in the nearby villages and distribution of medicines to the needy.	5.0
2	Installation of Bore wells, Hand pumps	Bore wells, Hand pumps in the nearby villages	6.0
3	Infrastructure Development of Schools	Modernization of class rooms, donation of computers, note books, other need based education materials, provision of potable drinking water and improving sanitation in local schools	5.0
4	Improving medical infrastructure	Improvement of medical infrastructure in PHCs and PHSCs	5.0
5	Plantation Drives	Plantation drives in the nearby villages	3.5
6	Merit Scholarships for students	For employee children and others studying in the nearby schools	4.0
7	Monitoring and Evaluation	Monitoring, Impact Assessment and Independent study	1.5
Grand Total			30.0