Item no. 42

Proposal No.:- SIA/MH/IND/436594/2023 **Type of Project: EC**

Subject- Environmental clearance for Proposed Common Biomedical Waste Treatment Plant at Plot No FF 20, Kagal Hatkanangale Five Star MIDC Area, Tal-Kagal, Dist.- Kolhapur, Maharashtra By M/s. Arogyam Waste Management Pvt. Ltd.

Project Details-

The proposed project activity is listed at Sr. No 7 (da) Bio-Medical Waste Treatment Facilities under category B1 of the EIA Notification, 2006 and the proposal is appraised in the SEAC-1 committee.

SEAC Deliberation –

Representative of PP was present during the meeting along with Accredited Environmental consultant M/s. Environmental & Engineering (I) Pvt Ltd

PP informed that, they had obtained online Tor Vide No. SIA/MH/MIS/75133/2022 dated 20.04.2022 for the preparation of EIA/EMP report.

The Maharashtra Pollution Control Board had issued Consents to Establish to the company after meeting the location criteria as per prevailing rules on 30.06.2023. As per consent to establish the jurisdiction of the proposed project will be newly established health care establishments or those not registered with existing common treatment facilities within Kolhapur District.

PP and their consultant informed that, as the proposed site is within notified industrial area, the public hearing is not applicable to their project.

The brief information of the project as submitted by the PP is as below,

<table>
<tr><th>Sr. No.</th><th>Particulars Required</th><th>Details</th></tr>
<tr><td>1.</td><td>Name of the project & Address along with all corner latitude and longitude</td><td>Name of the Project: Proposed common Bio-medical waste treatment facility at Plot no. FF-20, Kagal Hatkanangale Five Star MIDC Area, Tehsil-Kagal, District-Kolhapur, State-Maharashtra by M/s. Arogyam Waste Management Pvt. Ltd.

Latitude and Longitude:
<table>
<tr><th>Corner</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>16°36'18.21"</td><td>74°22'20.85"</td></tr>
<tr><td>B</td><td>16°36'17.90"</td><td>74°22'23.18"</td></tr>
<tr><td>C</td><td>16°36'16.73"</td><td>74°22'22.93"</td></tr>
<tr><td>D</td><td>16°36'14.34"</td><td>74°22'20.81"</td></tr>
<tr><td>E</td><td>16°36'14.32"</td><td>74°22'20.34"</td></tr>
</table></td></tr>
<tr><td>2.</td><td>Type of Organization (Private /Government/Semi Government etc.)</td><td>Private Limited company registered under Companies Act</td></tr>
<tr><td>3.</td><td>Correspondence Address and contact details of Project Proponent</td><td>Dr. Rajendra Wasudeo Abhyankar (Director)
M/s. Arogam Waste Management Pvt. Ltd.
Contact no: - 9822047650
Email: arogyamwastemanagement@gmail.com</td></tr>
</table>

Member Secretary

Chairman

		Correspondence Address: Plot No. FF 20, Kagal Hatkanangale Five Star MIDC Area, Tal. - Kagal, Dist. – Kolhapur- 416216.	
4.	Type of project (ToR/EC/Amendment in ToR/ Amendment in EC/ Revalidation/ Expansion/Process change etc.)	Environmental Clearance	
5.	Category of project as per EIA Notification 2006 amended from time to time (Pl. mention category A, B, B1, B2 etc. whichever is applicable)	7(d)(a) Common Biomedical Waste Treatment Facility, Category B1	
6.	If earlier ToR is obtained pl. mention details (ToR letter No. & Date, SEAC/EAC Meeting No.)	Yes, ToR Application- ToR granted from MoEFCC vide File No. SIA/MH/MIS/75133/2022 dated 20th April, 2022	
7.	If earlier EC is obtained pl. mention EC Number & Date	Not Applicable	
8.	Whether the proposal is a violation case (yes/no)	No, Not Applicable	
9.	Applicability of CRZ clearance (yes /no)	No, Not Applicable	
10.	Whether General /Specific Conditions are applicable to the project (Yes/No) If yes pl. give details	No, Not Applicable	
11.	Whether Scrutiny fees paid as per SEIAA guidelines (Yes/No); If yes pl give payment details	Yes, Rs.1.5 Lakh Scrutiny fee is paid on 15/09/2023	
12.	Name of accredited Environmental Consultant & address along with Accreditation No. & Validity	Fulgro Environmental and Engineering Services India Pvt. Ltd. NABET/EIA/2225/RA 0253 validity 09/02/2025 Ashok Vatika, Khatipura Road, Jhotwara, Jaipur- 302012 Email: info@fulgro.in, Contact: 0141-2466841, 91-9672567222.	
13.	Name of layout plan approving Authority	Kagal Hatkanangale Five Star MIDC	
14.	Estimated cost of Project (in Rs. Lakhs)	Rs. 5 Cr.	
15.	Area of project (in Sq.m.)	Total Plot Area- 4999 sq.m. Total Built-up Area- 2151.18 sq.m.	
16.	Whether 33% green belt is provided (Yes/No)	Yes (33.93% of total plot area)	
17.	Area of Green Belt & No. of trees in the proposed project in Sq.m. (Pl. provide 2000 trees per hectare of green belt area)	Green Belt Area: 1696.50 No of Trees in the proposed project: 500	
18.	Width of internal roads and turning radius	Internal road width: 6 meter Turning radius: 9.0 meter	
19.	Details of proposed construction	Total Built-up Area (in sq.m.)	2151.18
		Type of Building	G+1
20.	List of Raw materials & Storage Details (Pl. add on in the list if necessary) The proposed project is a Common Bio-medical waste treatment Facility Plant		
21.	Production Details The proposed project is a Common Bio-medical waste treatment Facility Plant with capacity as follows – Incinerator – 1 no. 250 kg/hr and 1 no. 250 kg/hr (Back Up) Autoclave – 250 kg per batch Shredder – 250 kg/hr		

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22. Water Consumption & Effluent generation (All units in CMD)

i) Source & Qty of water requirement (in CMD):

Requirement:

Proposed:

Construction Phase- 3 CMD

Operation Phase – 12 CMD (9 Fresh + 3 Recycle)

Source: Maharashtra Industrial Development Corporation (MIDC)

ii) Water supply permission obtained (Yes/No) & approving Authority: Kagal Hatkanangale Five Star MIDC

Water Budget:

Sr. No.	Particulars	Water Consumption (KLD)			Loss (KLD)	Effluent Generated (KLD)
		Fresh	Recycle	Total		
1.	Domestic	1.5	0	1.5	0.5	1
2.	Scrubber	1	1	2	1	1
3.	Washing	0	2	2	0	2
4.	Autoclave	4.5	0	4.5	4.5	0
5.	Gardening	2	0	2	2	0
	Total	**9**	**3**	**12**	**8**	**4**

23.	Quantity of sewage generation (in CMD)	Construction Phase - 1 CMD Operation Phase - 1 CMD Total – 2 CMD
24.	Details of Sewage Treatment and Disposal of treated sewage:	Total Domestic waste water generated will be 1CMD will be treated in package STP of capacity 1CMD
25.	Detail of Effluent Generation (unit CMD) The total trade effluent generated is 3 CMD which will be treated in Biological ETP of capacity 5 CMD. Treated water will be used for Floor Washing purpose and for Venturi Scrubber	
26.	Whether Zero liquid Discharge Effluent Treatment is proposed (Yes/No)	Yes
27.	Brief Description of Effluent Treatment scheme	Biological ETP has been proposed. Biological treatment is the use of bacteria and other microorganisms to remove contaminants by assimilating them has long been a mainstay of wastewater treatment in the chemical process industries (CPI). Because they are effective and widely used, many bio- logical-treatment options are available today. The generated 3CMD effluent will be treated in Biological ETP of 5 CMD. Treated water will be used for Floor Washing purpose and for Venturi Scrubber.
28.	Qty of treated effluent proposed to be sent to CETP (pl. mention Name of CETP and its membership Details)	No effluent will be sent to CETP, as the project is based on ZLD

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29. Please mention parameters of treated effluent to be achieved as per EP Rule,1986 and or stipulated by the SPCB

Parameter	Unit	Inlet to ETP	Outlet ETP
pH	--	5-9	6.5-8.5
BOD (3 days 27C)	mg/lit	200	<100
COD	mg/lit	800	<250
Total Suspended Solids	mg/lit	200	<100
TDS	mg/lit	2000	2000
Oil & Grease	mg/lit	20	<5

30. Brief Note on proposed Rainwater harvesting scheme along with budget allocation: — 1 no of RWH recharge tank of size 3m x 3m x 1.5m will be provided.

31. **Solid Waste management**

- Construction Phase:

Domestic waste -

✓ Dry Waste- 4.2kg/Day
✓ Wet Waste: 2.8kg/Day

Commercial Waste -

✓ Metal Scrap- 2MT/A
✓ Wooden box /paper/ corrugated box- 5MT/A
✓ Plastic Scrap- 1MT/A
✓ Debris & stony waste- 4MT/A

The waste will be stock at designated area of the site. Metal waste & debris/stony waste shall be utilized within site for road construction and site levelling. Other waste sale to authorized scrap vendor for segregation and disposal as per standard practice

- **Operation Phase:**

Type of Waste	Quantity	Disposal
Dry Waste	2.07kg/day	Sale to authorized vendor
Wet Waste	1.38kg/day	Sale to vermiculture or compost

32. **Hazardous Waste Generation & Disposal (As per HW Rule 2016)**

Sr. No.	Type of Waste	Quantity	UMO	Disposal
1.	35.3 ETP Sludge	6	MT/M	CHWTSDF
2.	37.2 Incineration Ash	10	MT/M	Will be sent to CHWTSDF for secured landfill
3.	5.1 Used or spent oil	5	Lit/M	Sale to Authorized party/ Recycle

33. Fuel Consumption

Sr. No	Particulars	Fuel	Quantity	Storage	GCV	Sulphur	Ash
1	DG Set	HSD	150 Lit/M	Tanks	10700	350 mg/kg	0.01
2	Incinerator	PNG	50-60 kg/hr	Pipe	11920	--	--

34. Brief Note on Air Pollution Control equipment's — The gases after being burnt at 1050° C ± 50° C shall be run into a dry scrubber followed by water quenching arrangement. Venturi Scrubber will be kept as Standby. The scrubber shall be dry scrubber

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		with ceramic filter to neutralize the gases and ensure trapping of any pollutants escaping into the environment.

35. Stack Details

Sr. No	Section / unit	Source of Pollutant	Stack No.	Stack Height	Height from Ground	Internal Dia (mm)	Temperature of exhaust gas
Proposed							
1.	Incinerator (1 nos X 250 kg/hr)	Stack	1	30m	30m	0.85	120°C
2.	1 X 50KVA DG set	Stack	1	8m	8m	0.3	200°C

36. **Energy**

a) Source of power Supply: Solar Panel & in emergency if required will be sourced from-MSEDCL

b) Demand Load: 24kW

c) Connected Load: 30kW

d) whether DG sets will be provided (Yes/No): Yes

if yes:

Sr. No.	No. of DG Sets	Capacity
1.	1	50KVA

a) Please Mention if a high-tension line is passing through the plot: **No**

If yes, pl. give details of safety measures adopted: NA

37. **Details of use of renewable energy with budget allocation**

i) Total Energy Demand = 24 kW

ii) Proposed renewable energy source capacity: 24 kW Solar energy (In case of emergency or non-availability of solar power, the power will be procured from MSEDCL)

iii) Proposed Budget (in Rs. Lakhs): 12,00,000.00

iv) Timeline for implementation: 1 Year

38. **Details of public hearing (if applicable)**- As the proposed project is located in MIDC area, public hearing is not applicable.

i) Place of public hearing: NA

ii) Date of public hearing: NA

Please fill following details

Sr. No.	Issue raised during public hearing	Applicant plan for its compliance/ implementation	Budget allocation for implementation	Specific time line of compliance
--	--	--	--	--

39. EMP (Please mention specific items proposed in EMP along with specific timeline for its implementation)

Construction Phase:

Sr. No.	Component	Description	Cost Rs. Per month

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1	Environmental Monitoring and Management	Air Pollution control	Dust Suppression by sprinkling water	₹. 20,000
			Ambient air monitoring, work place monitoring from MoEF approved lab on monthly basis.	₹. 30,000
		Water Pollution Control	Installation of Package STP	₹. 30,000
		Noise Pollution control	Noise Level Monitoring and Installation of Noise barriers.	₹. 20,000
2	Solid & Hazardous Waste Management		Disposal of Municipal Solid Waste and Industrial Construction Waste	₹. 10,000
3	Occupational Health and Safety		Medical check of staff from certified surgeon	₹. 10,000
			Provision for providing Personal Protective Equipment's to the labour's.	₹. 20,000
Total				**₹. 1,40,000/-**

Operation Phase:

Sr. No.	Component		Description	Capital cost in Rs. lacs	Recurring Cost (Rs. In Lacs/ yr)
1	Environmental Monitoring Cost	Air Environment	Ambient air monitoring, stack emission monitoring, workplace monitoring from MoEF approved lab on monthly basis.	--	2.00
		Water Environment	Regular monitoring of ground water quality near the project site.	--	0.50
		Noise Environment	Noise Level Monitoring	--	0.50
		Solid & Hazardous Waste Management	Hazardous waste disposal to CHWTSDF Site	1.00	0.20
2	Air Pollution Control		Installation of Air Pollution Control Devices such as venturi Scrubber, Dioxins & Furan Control System, etc.	10.00	2.00
3	Water Environment		Provision for Roof-top rain water harvesting structure and Strom water management system.	3.00	0.50
4	Online Effluent monitoring system		Installation of continuous online effluent monitoring system with connectivity to CPCB & MPCB	3.00	1.00
5	ETP (Effluent Treatment Plant)		Installation of Effluent treatment Plant (Primary, Secondary & Tertiary system)	15.00	2.00
6	STP (Sewage Treatment Plant)		Installation of Modular STP for treatment of Municipal Sewage.	3.00	0.50

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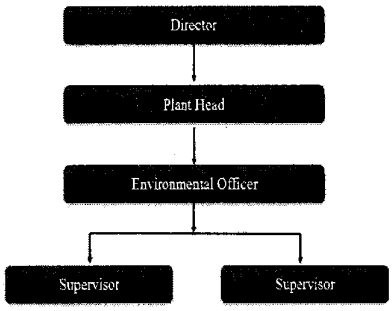
	7	Green Belt	Plantation of native and some odour control species within the premises and its regular maintenance.	2.00	0.50
	8.	Occupational Health and Safety	Regular health check of personnel from certified surgeon and providing health insurance.	2.00	0.50
			Providing Personal Protective Equipment's.	1.00	0.30
	9.	Renewable energy	Installation of Solar Rooftop Panel & Solar Street Light	12.00	1.00
	10.	Skills Training	Skills Training to the Personnel involved in the waste handling and management.	--	0.30
	Total			**52.00**	**11.80**

40.	Other Relevant Information: (Pl. provide brief note on proposed project)	It is a Green field project located at Plot no. FF-20, Kagal Hatkanangale Five Star MIDC Area, Tehsil-Kagal, District-Kolhapur, State-Maharashtra.
41.	Details of skill development program within Organization	✓ As per industry calendar, quarterly mock drills will be carried for emergency. ✓ Environment awareness programme will be conducted ✓ Celebration of environment day, safety week and others ✓ Training for ETP Operator ✓ Internal training for workers and staff before taking any new batch of product
42.	Details of environmental Monitoring Cell (Pl. provide organogram with educated Qualification and experience)	M/s. Arogyam Waste Management Pvt. Ltd. has formulated its own Environmental Management Cell which shall be responsible for the environmental management, monitoring and implementation activities of the proposed unit. EMC will carry out the various activities of the environment under the supervision of the Head of the plant. Organogram of Environmental Cell is shown below – 
43.	Details of court cases if pending in any Hon'ble court	No

Member Secretary

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Recommendations of SEAC-

After detailed deliberations with the PP and their accredited consultant, SEAC-1 decided to recommend the proposal to the SEIAA for the grant of prior Environmental Clearance subject to following specific conditions,

Sr. No	Condition
1.	PP to obtain necessary permission form the competent authority as a Karmawadi left irrigation canal is at a distance of 20 meters from the proposed facility. PP to obtain the permission for the same for clarity to SEIAA. In no condition, any waste should be discharged outside of the premises.
2.	PP to comply with the standard conditions stipulated for the Bio Medical Waste facility mentioned in the Office Memorandum issued by MoEF&CC dated 4th January, 2019
3.	PP to adhere to the jurisdiction as granted by the Competent Authority.
4.	PP to prepare and implement action plan for point wise compliance of the Bio Medical Waste Management Rules, 2106 amended from time to time and also to comply with the requirements as mentioned in the Guidelines for Management of Healthcare wastes as per Bio Medical Waste Management Rules, 2106.
5.	PP to achieve 100% Zero Liquid Discharge Effluent Treatment Plant.
6.	EMP should be upgraded for effective management of all parameters.
7.	PP to adopt out side area for development of additional green belt to off sent carbon foot print and submit the details
8.	PP to ensure to start green belt development along the periphery immediately by planting the trees of 3-4 years age, so as to ensure its use as barrier during operation of the unit.
9.	PP to create adequate storage capacity within the plant to be created so that no liquid or leachate can every flow outside of the premises and submit the same to SEIAA and share with all concerned authorities.
10.	PP to ensure extensive training and awareness campaign for the workers on site and staff of the member hospitals for segregation and collection of the Biomedical Waste. PP to prepare specific program to monitor safety and health protection of the workers
11.	PP to include Di-oxine , Furan, VOC in their Environmental Monitoring Plan and ensure tis monitoring as per CPCB Guidelines. If any of the parameter exceeds the standard parameter, the facility shall immediately be audited and rectification shall be done immediately.
12.	PP to ensure proper redundancy in operation and units to avoid any long-term shutdown and inadequate operations.
13.	PP to submit their plan to ensure continuous operation of the facility; the preventive maintenance schedule shall not affect the operation of the facility which may result in storage of waste without treatment on site.
14.	PP to obtain all necessary NOC's/permission from the local body /Authority before taking any effective step on site.
15.	PP to provide adequate parking within the plot area considering daily vehicular movement; in no case the vehicles, be parked on public road outside the premises.
16.	PP to provide at least 12 hours storage of effluent at ETP for further treatment so as to ensure storage of contaminated storm water if any in case of an emergency.
17.	PP to use new and renewable energy for illumination of office buildings, street lights, parking areas and maintain the same regularly.
18.	PP to utilize CER fund for strengthening of public infrastructure in the study area in consultation with the District Authority.

Member Secretary

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Deliberation in SEIAA-

Proposal is for establishment of Common Biomedical Waste Treatment Facility (CBWTF).

Proposal is recommended by SEAC-1 in its 267th meeting for grant of Environment Clearance.

PP submitted that they have obtained plan approval from MIDC vide DB/KH/FS/F-20/DIS/21356/2023, dated 13.10.2023 and as per the plan the Plot area is 4999 m2 and Green belt of 1661.85 m2 (33.00%) is provided.

SEIAA after deliberation decided to grant Environment Clearance subject to following Conditions-

1. PP submitted that they have obtained plan approval from MIDC vide DB/KH/FS/F-20/DIS/21356/2023, dated 13.10.2023 and as per the plan the Plot area is 4999 m2 and Green belt of 1661.85 m2 (33.00%) is provided. MIDC to ensure the compliance of the same.
2. PP to undertake Miyawaki plantation of native and indigenous trees such as Banyan, Peeple, Neem, Jamun and other suitable trees as per the Forest Department, Govt. of Maharashtra circular no SaVaVi-2019/C.R.3/F-11, dated 25th June, 2019. The said plantation to be completed in the first year of operation of Environmental Clearance under expert guidance of Miyawaki experts / arborist.
3. PP to strictly observe the Solid Waste Management Rules, 2016 as amended time to time.
4. PP to strictly observe the Hazardous and Other Wastes (Management & Trans boundary Movement) Rules, 2016 as amended time to time.
5. PP to identify all sources of fugitive air pollution on site and provide pollution control measures to mitigate pollution and meet the standard parameters stipulated in the Environment (Protection) Rules, 1986 amended time to time & Air (Prevention and Control of Pollution) Act, 1981 amended time to time.
6. PP to ensure storage of chemicals as per the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 amended time to time to ensure no release of any chemical to the atmosphere and leakage to the soil.
7. PP to ensure transport, storage, handling and use of the flammable/toxic chemicals as per conditions stipulated in license/approval of the Petroleum & Explosive Safety Organization (PESO).
8. PP to obtain approval and License from the Directorate of Industrial Health & Safety (DIHS) for proposed project and implement all condition stipulated therein. PP to carry out Safety Audit as stipulated in the Maharashtra Factories Rules, 1963 and ensure compliance of recommendation of the Audit.
9. PP to provide solar energy for illumination of Administrative Building, Street Lights and parking Area.
10. PP to ensure use of briquette /bio coal/ pellets/ or any such suitable product derived from scientific processing of appropriate stream of dry waste/agricultural waste, not less than 50 % of the total fuel requirement to the boiler.
11. PP to provide roof top Rain Water Harvesting facility.
12. PP to ensure that, proposed project is a ZLD unit.

SEIAA Decision-

SEIAA after deliberation decided to grant Environment Clearance.

Member Secretary

Chairman