



MAK INDIA LIMITED



OUR TECHNOLOGY PARTNERS

MAK Hybrid Municipal Solid Waste Management System (MSMS)



“Nip it at the Bud”

**Decentralized, Patented, Pollution-Free,
Waste-to-Wealth Solution**

***Make in India | Atmanirbhar Bharat |
Clean Mother Earth | Global Warming
Compliance (World's First)***

THE SYSTEM ADOPTED WORLDWIDE IS NOT ADEQUATE TO THE CURRENT NEED TO MAKE ZERO WASTE DUMP

HENCE THIS INVENTION OF

“HYBRID MUNICIPAL SOLID WASTE MANAGEMENT SYSTEM”

Issue

Municipal Solid Waste Management (MSWM) Rules are clear. But they are not complied with, primarily due to the absence of implementable technology.

Solution

Not anymore. Today, proven technology is available, and citizen pressure is rising — people are demanding an end to dumping and open burning due to severe air and groundwater pollution. Public litigations are being filed to ban dumping practices across Tamil Nadu.

So let the Government take the lead — implement this field-proven technology and make India the first country in the world to mitigate global warming through Zero Dump, Zero Landfill implementation.

About Technology

The MAK Hybrid MSMS system is very simple to educate, execute, and maintain — designed for both citizens and administrators.

Food Waste Generators' Responsibility:

- Store food waste separately in a GREEN cover (with QR code for traceability).
- Place the sealed bag in a Green Bin every night before 12 midnight for collection.

Collection Agents' Responsibility:

- Ensure all food waste reaches the assigned Hybrid MSMS Plant before 5:00 AM daily.

Plant Operation

The Hybrid MSMS Plant grinds food waste (nearly 85 % moisture) and mixes it with dry biodegradable materials like wood dust, sawdust, or coir pith.

Moisture is reduced to below 50%, then pelletized and stored for further processing into BIOCHAR using recovered heat.

At this stage, the major source of solid waste pollution is completely neutralized — no odor, no leachate, no methane.

Handling of Dry Waste

Both biodegradable and non-biodegradable dry waste are managed efficiently:

- Waste generators call or send an SMS to the pickup service once the bin is full.
- The pickup team transports this to the nearest Hybrid MSMS Center.



MAK Hybrid Municipal Solid Waste Management System (MSMS)

Waste to Zero Waste in 24 Hours – A Proven, Patented, Pollution-Free Solution
Make in India | Atmanirbhar Bharat | Clean Mother Earth
Global Warming Compliance (First in the world)

Project Key Highlights

- Waste → Heat Energy → Wealth → Wealth Cycle
- Zero Health Hazard, Zero Pollution, Zero Dump
- Circular Economy for a Sustainable Future
- Proven success: Operating for over 6 years (2 years at Erode and 4 years at Kodungaiyur, Chennai) with CTO from TNPCB.
- Greater Chennai Corporation (GCC) and Erode Municipality endorsed and IIT and Anna University recognized, evaluated and approved and are being used for student education.
- Make in India, Atmanirbhar with great Global opportunity.
- Circular Carbon Cycle — “Food from Soil → Waste → Biochar → Back to Soil → Food Again



Waste to Wealth: Transforming Food Waste into Sustainable Biochar, Latest CSIR technology

Waste to Zero Waste: Redefining Recycling with Zero-Waste Innovation

Waste to Energy: Turning Yesterday's Waste into Today's Heat Power for multiple uses to convert waste to wealth and mitigate waste.

Our Operations are in line with



Tamil Nadu's Waste Emergency: A Silent Environmental Crisis

Tamil Nadu, one of India's most industrially advanced and urbanized states, is struggling under the weight of its own waste. The state generates over 16,000 tonnes of solid waste every day, much of which continues to be dumped or landfilled in open sites across districts like Chennai, Coimbatore, Tirupur, Madurai, and Salem. These legacy dump yards have turned into environmental hotspots, releasing toxic leachate that contaminates groundwater, methane and carbon dioxide that pollute the air, and pathogens that threaten public health. Communities living near these sites suffer from respiratory illnesses, foul odour, and degraded living conditions, resulting in citizen protests and legal petitions in several regions.

Despite various municipal drives and Swachh Bharat initiatives, traditional waste management methods — especially those relying on source segregation, compost yards, and Micro Compost Centers (MCCs) — have failed to address the challenge. The core issue lies in food waste, which constitutes over 60% of Tamil Nadu's municipal waste. This fraction is the most unstable and hazardous, decomposing within hours to produce bad Odour, methane gas, and infectious leachate. Without immediate scientific treatment, it overwhelms segregation systems and creates secondary pollution at transfer and processing points.

The outcome is a statewide chain of inefficiency — where collection, segregation, transport, and disposal systems all buckle under the volume and volatility of mixed waste. Tamil Nadu urgently needs a paradigm shift — moving away from dumping and manual composting toward scientific, decentralized, and technology-driven systems that process waste safely, rapidly, and sustainably.



The Solution - MAK KILN 1000+ C RDF Combustion Technology (Patented)

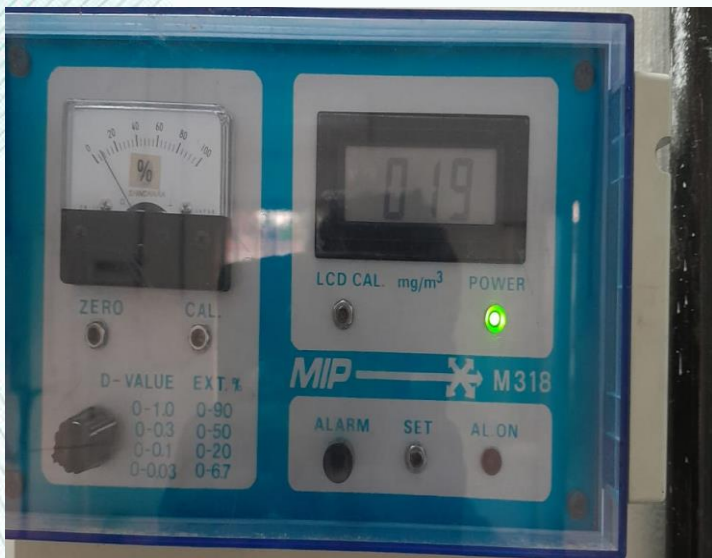


Our MAK KILN 1000+ C system, a cutting-edge patented technology, which has been upgraded to incorporate advanced waste management technologies.

This plant is designed to treat Municipal Solid Waste (MSW) in an environmentally sustainable manner, aligning with the principles of Waste-to-Wealth, Waste-to-Zero Waste, and Waste-to-Heat Energy.

A Patented, Field-Proven, World-First System designed and deployed by MAK Group, a Military and Aerospace technology specialist with associations across USA, Boeing, Lockheed Martin, NASA, and having clients base of 57+ airlines in 40+ countries worldwide.

Proudly developed and manufactured under the Make in India since 1973 and Atmanirbhar Bharat mission, MSMS converts all waste into useful resources within 24 hours of receipt - eliminating the need for dumping or landfill.



Total Sustainable Waste-to-Wealth Conversion

- MAK KILN 1000+ burns RDF >1000°C with emission compliance ensuring maximum organic breakdown.
- Heat recovery powers drying and pyrolysis of food waste and biodegradable waste
- Produces biochar and syn gas, diverting waste from landfills
- Advanced emission control reduces NOx, SO2 and CO to well within the allowed limit.
- Heat capture for integrated process efficiency.



Technology Uniqueness:

- Patented scientific incineration technology.
- First of its kind technology in the world to get CTO from PCB.
- Convert even an unsegregated solid waste into wealth and energy within 24 hours.

Projects:

- 10 TPD at Erode Corporation as an R&D plant (Completed and operated for 3 years)
- 50 TPD at Kodungaiyur, Greater Chennai Corporation under PPP model since 2021
- 5 TPD at Dr. GRD College of Arts and Science, Coimbatore under BOT model since 2023

Credentials:

- Obtained patent for India and pending international patent.
- CTO from TNPCB
- Got “Cavinkare MMA Chinnikrishnan Innovation awards 2020”
- First in the world to handle COVID-19 medical waste
- Erode City Municipal Corporation endorsed
- Greater Chennai Corporation endorsed



“Existing Solid Waste Statistics in Tamil Nadu

- Number of Corporation – 25
- Number of Municipalities – 141
- Number of Town Panchayats – 481

Source: https://tnpcb.gov.in/PDF/Waste_Mngt/Sol id-wste/AnnualRptSWM24_25.pdf

- As per TNPCB Annual report for the year 2024-2025, TN produces 16,563 tonnes of municipal solid waste per day. Most of this waste goes to dumpsite. 100% of this waste during rainy season goes to dumpsite.
- Total number of existing dumpsites – 291

Solid Waste Processing Facilities – Existing:

#	Processing Facility Details	No. of Centers	Total Capacity (TPD)
1.	Micro Composting Centers	1095	3988
2.	Onsite Composting Centers	907	350
3.	Windrows Composting	500	1686
4.	Biogas / Bio CNG	2	200
5.	Bio Methanation	236	236
6.	Material Recovery Facility	819	2491
7.	Total		8951

Solid Waste Processing Facilities – Under Installation / Planned:

#	Processing Facility Details	No. of Centers	Total Capacity (TPD)
1.	Micro Composting Centers	68	383
2.	Biogas / Bio CNG	11	1650
3.	Bio Methanation	6	27
4.	Material Recovery Facility	79	664
5.	Total		2724

”

Unfortunately, the facilities created with good intention don’t meet the requirement effectively due to limitations of existing technology leading to dump yards particularly during rainy season. As a result, waste ends up in landfills, releasing harmful gases and chemicals. This not only pollutes our air and water but also wastes materials that could have been reused.

Classification of Wastes: Our Hybrid MSMS can handle all the following:

- **Biodegradable:** Food, kitchen, garden waste, etc.
- **Non-Biodegradable:** Plastics, glass, packaging, etc.
- **Household Waste:** Segregated/combined from homes.
- **Medical Waste:** Hospitals, clinics, labs, etc.
- **Sanitary Waste:** Napkins & diapers.

TYPES OF WASTE



Categorizing the MSW: This is very important to understand.

Wet Food Waste: This is the pollutant and must be treated and disposed of in less than 24 Hours of its generation before it starts fouling action.

Dry Waste: All dry biodegradable and non-biodegradable wastes which would not create short term pollution. It can be stored for weeks before sending them to the MAK Hybrid MSMS Plant.

The pollutant in MSW: Food waste is the pollutant. So, our system concentrates on collecting food waste. We categorize food waste generators into two types.

a) Individual Household (Average < 5 Kg/day)

b) Bulk waste (average > 5 Kg/day)

Proposed Waste Collection System: The Two-Bag System (MAK MSMS Smart Waste Collection Model)

Bag 1 (Green Color) – For Food Waste Only (biodegradable):

- Used by homes, apartments, hotels, restaurants, and small generators.
- Must be color-coded or barcoded to track the origin of food waste.
- Enables accountability and swift corrective action when required.
- Must reach MSMS Plant within 24 hours of generation.

Bag 2 (Red Color) – For Food Waste Only (biodegradable):

- Used by homes, apartments, hotels, restaurants, and small generators.
- Must be color-coded or barcoded to track the origin of food waste.
- Enables accountability and swift corrective action when required.
- Must reach MSMS Plant within 24 hours of generation.



Core Principles

- Segregation at Source – Every generator must separate FOOD waste.
- Polluter Pays – Waste generators bear the cost of waste disposal.
- No open dumping or burning.

One Stone, Many Mangoes

- Ensures accurate source-wise waste tracking and responsibility
- Promotes segregation discipline without complexity
- Keeps food waste pure for timely biochar processing
- Avoids contamination from mixed waste
- Enables heat recovery from dry non-bio waste
- Strengthens decentralized waste management with full traceability

Household & Institutional Wastes

A. The Waste Collection System:

- Hotels, homes, apartments, and small establishments must use the Two-Bag System / Two-Bin System.
- Recyclable Plastic bags are allowed as MSMS plant unloads and segregates waste efficiently and send the bags for recycling or burns at the MAK KILN 1000+C

B. The Waste Transit System

- Food waste bag must be emptied into the designated bin every night before sleep.
- Scheduled pickup by collection agency ensures food waste reaches MSMS plant within 24 hours of generation.
- Non-biodegradable dry waste can be stored and dropped into a separate bin when full.
- Community/resident management is responsible for bin maintenance and segregation compliance.

C. Waste Process System at MAK Hybrid MSMS Plant:

- The Bio-degradable wastes are processed to convert it into biochar.
- The non-biodegradable waste is incinerated using MAK KILN-1000 system.
- The heat generated is used to produce heat power for consumption for drying the waste and making biochar.



D. One Stone, Many Mangoes

- Prevents food waste from decomposing in homes or streets
- Reduces flies, rodents, and disease spread
- Enables efficient daily collection and biochar conversion
- Promotes household-level discipline and community hygiene
- Supports complete segregation at source with minimal behavior change
- Plastic bags pose no problem under this system



Non- Recyclable Waste & Heat Recovery

A. The Waste Transit System:

- Bulk generators can use pickup services operated by collection agency and deliver it at the nearest MAK Hybrid MSMS plant site.

B. Waste Process System at MAK MSMS Plant:

- The non-salable, non-biodegradable waste (RDF) will be processed and destroyed through high-temperature combustion in MAK KILN 1000+C
- RDF and inert waste ash converted into construction materials like pavers, tiles, and bricks. Ash from combustion becomes a binding material — ensuring zero residue.

C. One Stone, Many Mangoes

- Safe, permanent disposal of otherwise unmanageable waste
- Converts thermal waste into usable process energy
- Reduces fossil fuel dependency for drying and heating
- Enhances MAK KILN energy efficiency and biochar productivity
- Creates a clean, integrated, circular waste-energy system

Disposal of Used Beds and Furniture

A. Waste Collection & Transit System:

- All used beds, pillows, mattresses, sofas, and wooden furniture must be delivered to the nearest MAK Hybrid MSMS plant site.
- Generators can use pickup services operated by collection agency and deliver them at the nearest MAK Hybrid MSMS plant site.
- No item shall be sent to landfills or dump yards to prevent long-term environmental damage.



B. Waste Process System Using MAK KILN 1000+C Solution

- Items are shredded (if needed) and safely incinerated in the MAK KILN 1000+C at $>1000^{\circ}\text{C}$.
- Emissions are minimized, and harmful components are destroyed effectively
- Combustion heat is recovered for productive applications:
- Drying other waste streams (e.g. food, biomass)
- Preheating combustion air to improve thermal efficiency
- Heating the biochar chamber to $600^{\circ}\text{C}+$

C. One Stone, Many Mangoes

- No landfill or dump yard burden
- Environmentally responsible disposal of bulky items
- Mother Earth–friendly circular system
- Youth-led logistics and job creation
- Supports global warming mitigation by eliminating methane from dumps

Transforming Food Waste into Biochar

A. The Problem

- Food waste is the most dangerous pollutant in landfills and dump yards. For Ex: food waste, sawdust, bones, bark, waste wood, etc.
- It emits methane (a potent greenhouse gas), foul odors, and toxic leachate. Attracts pests, spreads disease, and accelerates climate change.
- Poor segregation and delayed treatment worsen the impact.

B. Our Disruptive Solution

- Daily food waste collection from restaurants by collection agency
- Dried using solar/waste heat from MAK Hybrid KILN 1000+C to $<15\%$ moisture
- Carbonized in MAK Hybrid Biochar Unit with waste heat harvesting from MAK Hybrid KILN 1000+
- which supports pyrolysis
- Zero odor, zero methane, zero landfill
- Biochar returns to soil as a natural carbon-rich fertilizer, creating a circular carbon cycle — “Food from Soil $\rightarrow$ Waste $\rightarrow$ Biochar $\rightarrow$ Back to Soil $\rightarrow$ Food Again”

C. One Stone, Many Mangoes

- Waste Managed at Source
- Climate Emissions Avoided
- Biochar Generated
- Youth Empowered – Help them to help themselves
- Scalable, Replicable Model
- Methane emission reduction & landfill reclamation.
- Job creation, circular economy, cleaner environment
- Carbon sequestration & soil health improvement



Dry Biodegradable Waste into Biochar



A. Waste Collection & Transit System

- Bulk generators (markets, farms, industries) deliver directly to MAK's Hybrid MSMS plant with 1–2 tons loads.
- Small generators store and either deliver or call collection agency for pickup.

B. Waste Process System at Hybrid MSMS Plant

- All dry biodegradable waste (leaves, twigs, sawdust, cardboard, coir, crop residue) is a resource for biochar
- Waste is verified, dried, shredded into chips or pellets.
- Fed into Biochar unit for high-efficiency biochar conversion.

C. One Stone, Many Mangoes

- Eliminates landfill/dump yard use and associated pollution & health hazards
- Reduces methane, CO₂ – direct contribution to global warming mitigation
- Convert waste to high-carbon biochar for soil regeneration & water retention
- Empowers youth, creates sustainable green jobs
- Low-cost, scalable, and community-driven circular economy model

Safe Disposal of Napkins, Diapers & Medical Waste

A. Waste Collection & Transit System

- Individual households must pack it in durable, sealed pouches that can contain odour and infection risks for several days and dispose in red bin meant for dry waste.
- Bulk generators like hospitals, hostels, care homes must deliver this waste daily to the Hybrid MSMS plant.

B. Waste Process System at Hybrid MSMS Plant

- The Hybrid MSMS plant will incinerate these materials at >1000°C in MAK KILN 1000+C to ensure complete sterilization and destruction as per norms.

C. One Stone, Many Mangoes

- Prevents disease transmission and biohazard risks
- Reduces landfill burden and uncontrolled burning
- Ensures complete destruction at safe high temperature
- Keeps food waste stream pure and suitable for biochar
- Offers community-level clarity and compliance
- Empowers a safe and eco-conscious disposal system



Final Step: Turning Ash into Paver Blocks – MAK MSMS Zero Waste Vision



Scientific Ash Conversion

- All useless, non-recyclable waste is scientifically incinerated in MAK KILN 1000+C.
- This high-temperature combustion reduces bulky waste into sterile, mineral-rich ash.
- The ash is used as a filler along with cement, sand, and stone aggregates to produce durable paver blocks.
- These pavers are ideal for pathways, parking areas, community zones, and public works.



A Complete Waste-to-Wealth Model

- Waste to Energy (via heat recovery)
- Waste to Biochar (from food & biodegradable matter)
- Waste to Pavers (from non-recyclable residue ash)

One Stone, Many Mangoes – Ultimate Benefits:

- 100% Zero Waste Achievement
- No dump yards, no landfill expansion
- Permanent elimination of legacy waste
- Adds value to ashes otherwise discarded
- Reduces cost of construction materials
- Generate jobs in ash-based product manufacturing
- Establishes circular economy using MAK MSMS system
- Supports Smart Cities, Clean Mother earth, and Climate Action goals



Decentralized Village / Town / City Model – MAK MSMS Plant Range

The Decentralized Deployment Strategy

- MAK MSMS plants are designed to serve at the grassroots level, enabling direct waste processing where it is generated.
- Tailored to accommodate the scale of waste generation across villages, towns, and city wards.

Two Configurations for MSMS Plants

Compact Rural / Ward-Level MSMS Plant:

- Capacity: Up to 5 tons per day
- Suitable for panchayats, small towns, or urban wards
- Low CAPEX, minimal land use, quick setup

Medium Urban Cluster MSMS Plant:

- Capacity: Up to 25 tons per day
- Serves municipalities or clusters of wards
- Includes extended ash conversion and biochar production facilities

One Stone, Many Mangoes

- Minimize waste transportation cost and carbon footprint
- Enables community ownership and fast feedback loops
- Flexible deployment in both urban and rural geographies
- Scalable from village to metro level with modular expansion
- Supports Swachh Bharat, Smart Cities, and Climate Action goals



MAK MSMS - Implementation Models

#	Model	Description	Financial Structure
1	BOT (Build-Operate-Transfer)	Corporation funds CAPEX & OPEX; MAK Builds and Operates until Transfer.	Fully owned by Municipality
2	PPP (Public-Private Participation)	MAK invests in MSMS system; Corporation provides land, infra and 1/3 CAPEX; pays fixed rate per ton.	No Major CAPEX burden to Govt. OPEX funded by Corporation and collected from Polluters

MAK Hybrid MSMS: Modular Stand-Alone Plant – Engineered for Versatility & Performance

Core Components of the MAK Hybrid MSMS System

- MAK KILN 1000+C – The heart of the plant that generates high-temperature heat for all subsystems.
- Biodegradable pulverizes, food waste processor and pelletizer
- Mixed Waste Dryer – Uses recovered heat to dry mixed waste for easier segregation and volume reduction.
- Biochar Chamber – Converts dried biodegradable palettized waste into high-carbon biochar for soil, filtration, etc.

Modular Design Philosophy

- All subsystems are modular, easy to assemble and disassemble on-site
- Common components across modules to reduce spare inventory burden
- Easy access design for maintenance and replacement.
- Compact footprint, suitable for both urban and rural deployment
- Scalability through plug-and-play expansion (2 to 25 TPD).
- Engineered for worldwide deployment

Productive Use of Recovered Heat Energy

- Drying mixed waste to aid in efficient segregation and volume reduction
- Feeding hot air back into the KILN 1000+C to sustain fire without external fuel and maintain flue gas temperature >1000°C to destroy toxin gases at source.
- Drying wet food wastes <14% moisture before biochar conversion.
- Heating and maintaining the biochar chamber at or above 600°C.
- Advanced 1000+ Deg C flue gas burns all poisonous gas and CO2 scrubbed and filtered ensures zero air pollution and zero health hazard

One Stone, Many Mangoes – Key Advantages

- Stand-alone system with zero dependency on power grid
- Eliminates dump yards and unsustainable landfills
- Converts all waste streams into usable outputs: energy, biochar, pavers
- Easily replicable across city wards, towns, and industrial zones
- Empowers youth, decentralizes waste management, and supports circular economy goals

Conclusion

The MAK MSMS is not a concept — it is a field-proven reality that delivers “Waste to Zero Waste in 24 Hours.” It represents Tamil Nadu’s opportunity to become the PAN India and Global model for sustainable waste management — Clean Mother Earth, Create Wealth, and Protect Public Health.



MAK Hybrid Municipal Solid Waste Management System (MSMS)



OUR TECHNOLOGY PARTNERS



MAK INDIA LIMITED

**Address: 7/41B, Mak India Road, Avinashi Road,
Coimbatore, Tamil Nadu – 641014**

Email: mak@makindia.co.in / info@makindia.co.in

Mobile: +91 99944 15000

Landline: +91 0422 4305074

Product Video: <https://youtube.com/watch?v=A31iMJSvvCg&feature=shared>



TAMILNADU POLLUTION CONTROL BOARD

Category of the Industry :

RED



CONSENT ORDER NO. 2408151642427

DATED: 10/10/2024.

PROCEEDINGS NO.F.2726CHN/RM/JCEE-M/TNPCB/CHN/W/2024 DATED: 10/10/2024

SUB: Tamil Nadu Pollution Control Board - RENEWAL OF CONSENT – M/s. M/S. MAK CONTROLS AND SYSTEM PVT LTD , S.F.No. 79 Part of Block No. 48, KONDUNGAIYUR village, Perambur Taluk and Chennai District - Renewal of Consent for the operation of the plant and discharge of sewage and/or trade effluent under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act 6 of 1974) – Issued- Reg. (Industry User ID- R20CHN34865389)

REF: 1. TNPC Board's Proc. No.T1/TNPCB/F.2726CHN/RM/CHN/W&A/2022, Dated: 23/09/2022.
2. OCMMS Application No. 51642427, Dated: 24-03-2023.
3. IR.No : F.2726CHN/RM/AE/CHN/2024, Dated 07/10/2024.

RENEWAL OF CONSENT is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act, 6 of 1974) (hereinafter referred to as "The Act") and the rules and orders made there under to

The Chairman
M/s . M/S. MAK CONTROLS AND SYSTEM PVT LTD
S.F No. 79 Part of Block No. 48
KONDUNGAIYUR Village
Perambur Taluk
Chennai District.

Authorising the occupier to make discharge of sewage and /or trade effluent.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier and subject to the special conditions annexed.

This RENEWAL OF CONSENT is valid for the period ending **March 31, 2028**

D VASUDEVAN Digitally signed by D VASUDEVAN
Date: 2024.10.10 12:10:42 +05'30'

**Joint Chief Environmental Engineer-
Monitoring,
Tamil Nadu Pollution Control Board,
Chennai**



TAMILNADU POLLUTION CONTROL BOARD



Category of the Industry :

RED



CONSENT ORDER NO. 2408251642427 DATED: 10/10/2024.

PROCEEDINGS NO.F.2726CHN/RM/JCEE-M/TNPCB/CHN/A/2024 DATED:
10/10/2024

SUB: Tamil Nadu Pollution Control Board - RENEWAL OF CONSENT -M/s. M/S. MAK CONTROLS AND SYSTEM PVT LTD , S.F.No. 79 Part of Block No. 48, KONDUNGAIYUR village, Perambur Taluk and Chennai District - Renewal of Consent for the operation of the plant and discharge of emissions under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981) -Issued- Reg. (Industry User ID- R20CHN34865389)

REF: 1. TNPC Board's Proc. No.T1/TNPCB/F.2726CHN/RM/CHN/W&A/2022, Dated: 23/09/2022.
2. OCMMS Application No. 51642427, Dated: 24-03-2023.
3. IR.No : F.2726CHN/RM/AE/CHN/2024, Dated 07/10/2024.

RENEWAL OF CONSENT is hereby granted under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981) (hereinafter referred to as "The Act") and the rules and orders made there under to

The Chairman
M/s . M/S. MAK CONTROLS AND SYSTEM PVT LTD
S.F No. 79 Part of Block No. 48
KONDUNGAIYUR Village
Perambur Taluk
Chennai District.

Authorizing the occupier to operate the industrial plant in the Air Pollution Control Area as notified by the Government and to make discharge of emission from the stacks/chimneys.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier and subject to the special conditions annexed.

This RENEWAL OF CONSENT is valid for the period ending **March 31, 2028**

D VASUDEVAN

Digitally signed by D
VASUDEVAN
Date: 2024.10.10 12:11:34 +05'30'

**Joint Chief Environmental Engineer-
Monitoring,
Tamil Nadu Pollution Control Board,
Chennai**

GREATER CHENNAI CORPORATION

CERTIFICATE

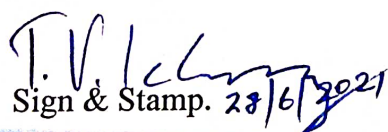
TO WHOMSOEVER IT MAY CONCERN

This is to certify that M/s. MAK Controls & Systems Private Limited, the parent company of MAK Group, Coimbatore, Tamil Nadu has executed the work of Design, Engineering, Supply, Erection, Installation, Construction, Testing and Commissioning of 10 MT per day capacity Scientific Incinerator for Solid Waste Management Decentralized Processing unit for Non-recyclable Dry Waste (i.e. Solid Waste Processing and Treatment Plant).

This plant is successfully completed in October 2019 and now it is under operation and maintenance since completion till today. The operations and maintenance are managed by MAK INDIA LIMITED, a wholly owned subsidiary of MAK Controls & System Private Limited.

Note: This certificate is issued on request of M/s. MAK Controls & Systems Private Limited for their qualifications and tendering purpose for their future projects.

Date: 28th June 2021.


Sign & Stamp. 28/6/2021

EXECUTIVE ENGINEER
SOLID WASTE MANAGEMENT DEPARTMENT
GREATER CHENNAI CORPORATION

ERODE CITY MUNICIPAL CORPORATION

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

"An Incinerator Designed and Developed by Mak Controls & Systems Private Limited, the parent company of MAK Group, Coimbatore was Installed at Erode with 10 MT per day capacity to incinerate Dry Municipal Solid waste and successfully replaced with 50 MT per Day capacity. The incinerator is functioning successfully with Dry MSW since last six months and continuing. The Dry waste being supplied by Erode Municipal Corporation. The operations are managed by MAK INDIA LIMITED, a wholly owned subsidiary of Mak Controls & Systems Pvt.Ltd.,"

Place : ERODE

Date : 14.06.2019



COMMISSIONER

ERODE CITY MUNICIPAL CORPORATION

12/06/19

ANNA UNIVERSITY, CHENNAI
Anna University (CEG Campus)
Chennai -600025

CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that M/s. MAK Controls & Systems Private Limited, the parent company of MAK Group, Coimbatore, Tamil Nadu has executed the work of Design, Engineering, Supply, Erection, Installation, Construction, Testing and Commissioning of 10 MT per day capacity Incinerator (i.e. Solid Waste Processing and Treatment Plant) for Dry Municipal Solid Waste at Erode City Municipal Corporation, Tamil Nadu and also it was successfully replaced (enhanced) with 50 MT per day capacity Incinerator (i.e. Solid Waste Processing and Treatment Plant) for Dry Municipal Solid Waste.

This plant is functioning successfully with Dry Municipal Solid Waste since January 2019 till date and continuing. The dry waste is being supplied by the Erode City Municipal Corporation. The operations and maintenance are managed by MAK INDIA LIMITED, a wholly owned subsidiary of MAK Controls & System Private Limited.

Note: This certificate is issued on request of M/s. MAK Controls & Systems Private Limited for their qualifications and tendering purpose for their future projects.

Place: Erode, Tamil Nadu.

Date: 30th May 2020.



S.Giridaran,

M.E.Environmental Engineering/Research Scholar

CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

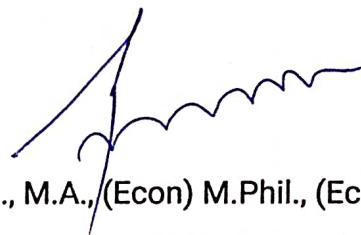
This is to certify that M/s. MAK Controls & Systems Private Limited, the parent company of MAK Group, Coimbatore, Tamil Nadu has executed the work of Design, Engineering, Supply, Erection, Installation, Construction, Testing and Commissioning of 10 MT per day capacity Incinerator (i.e. Solid Waste Processing and Treatment Plant) for Dry Municipal Solid Waste at Erode City Municipal Corporation, Tamil Nadu and also it was successfully replaced (enhanced) with 50 MT per day capacity Incinerator (i.e. Solid Waste Processing and Treatment Plant) for Dry Municipal Solid Waste.

This plant is functioning successfully with Dry Municipal Solid Waste since January 2019 till date and continuing. The dry waste is being supplied by the Erode City Municipal Corporation. The operations and maintenance are managed by MAK INDIA LIMITED, a wholly owned subsidiary of MAK Controls & System Private Limited.

Note: This certificate is issued on request of M/s. MAK Controls & Systems Private Limited for their qualifications and tendering purpose for their future projects.

Place: Erode, Tamil Nadu.

Date: 20th July 2020.



B. Chandrasekaran., M.A., (Econ) M.Phil., (Econ)

Environmental Economist &

Former Consultant at Union Planning Commission, Government of India,

Honourary Research Fellow at

Centre for Public Policy Research (CPPR), Kochi, Kerala