



# Fish & Bonemeal Waste-to-Feeds

## INFORMATION MEMORANDUM

### **Waste Management Rethink**

It is clear that the solution for waste management is not merely a matter of collecting the waste, but it is also essential for new technology to be integrated into the treatment systems in order to appropriately deal with India's diverse categories of waste. It is also essential for entities to take a firm grip of their own generation of waste, as well as the treatment of that waste, prior to it being collected and/or disposed of by the local municipalities. Medium and long-term cost savings for the establishments that generate the waste is the most positive fall-out as is the impact on environmental pollution and degradation.

Consolidated Waste Management® (CWM) was established in 1997 and its director was part of the Citizens' Panel deliberating the formulation of the Government of India's Ministry of Environment & Forest's *Biomedical Waste Management & Disposal Rules, 1998*. CWM's installation at the Tata Memorial Cancer Centre (TMCC) in Mumbai as far back as 1999 is a clear instance in which the collection, treatment and disposal of infectious biomedical waste was revolutionised. Due to the steam sterilisers' ability to reduce the volume and weight of the waste by 80-85% the results allowed for TMCC to go from filling two x 2-tonne waste dumpsters **per day**, to requiring a *single* 1-tonne dumpster **per week**. It is critical in this modern day for waste solutions to be able to impact a business or organisation in the way it views waste management and in the way waste management impacts its bottom line.

CWM's eco-conscious steam sterilisers which guarantee waste sterility to the highest possible Log 6, also ensure worker-safety and have been custom-designed in order to uniquely be used within the framework of a varying number of industries, thereby creating true change and impact in waste management.

### **Technology Fundamentals**

The foundation of CWM's technology is an autoclave, which is a base technology by which heat in the form of steam and pressure is applied to waste over a prescribed amount of time, which is what ensures sterility of the highest level. **Flash-burning in incinerators at temperatures as high as 1000 degrees C does not ensure total bacterial kill as does slow steam sterilization at low temperatures (121-133 degrees C) and pressures.**

CWM's versatile sterilisers have varied applications:

- The WasteDoctor: at hospitals, clinics and nursing homes
- The WasteChef: in the food and horticulture industry
- The Waste Clinic: as a truck-mounted door-to-door collection & treatment system
- The Waste Base: for use at large waste treatment or transfer stations
- The Waste Master: for use on board large ships or at ports

Contd....

**FISH WASTE TO FISHMEAL AT SASSOON DOCKS, COLABA, MUMBAI**

The WasteBase can be utilized also at fishing docks, at poultry-culling stations or at abattoirs to sterilise and breakdown fish, chicken, meat and bone – to produce valuable poultry feed or dog food pellets.

Fishmeal is the most expensive and valuable nutrient not only in the plant and horticulture industry due to its high phosphorous content, but more as apart of a carefully-calculated formula in the production of chicken-feed and dog-food pellets.

It is estimated that on the buying cost of Rs. 7 per kg fishwaste, the same could be sterilized, ground, bagged and sold for more than Rs. 28 per kilogram....and rising! The net profit would be approximately Rs. 5 per kilogram.

CWM has a prototype sterilizer ready to be installed for the entire process-chain – from collection to bagging to sale – and is ready to go.

***CWM's patent-pending waste technology is several steps ahead***

CWM has endeavored to create a solution that is not only ecological but also economical. Please view below a short fact section of commonly asked questions for an added overview of CWM and its steam-sterilisers:

1. CWM is a technology provider, but also has experience in how centralised waste facilities can be set up; as well as the ability to advise in the case of hospitals and food processing factories, how to best utilise all the elements of the technology (such as the rotating canister that is mobile) in order to ensure smooth operational efficiencies.

2. CWM is a privately-owned, ISO 9001:2008 Indian Company, and the technology is Patent-Pending and trademarked. The technology has been developed in-house.

3. CWM has sold waste technology machines to:

- DysaTratamientos, New Mexico
- The Tata Memorial Cancer Hospital (Mumbai, India)
- Hindalco Hospital (Uttar Pradesh, India)
- Dr. B Borooah Cancer Institute (Guwahati, Assam, India)
- Bangladesh Rifles (BDR) Hospital (Dhaka, Bangladesh)

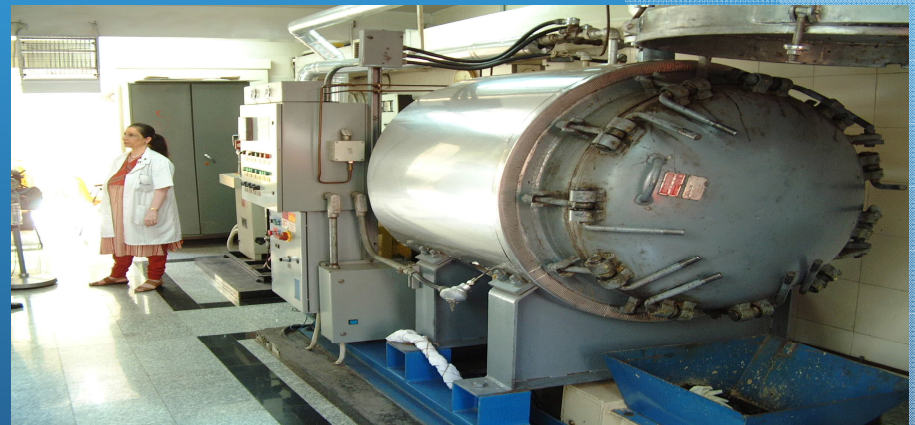


# Tata Memorial - Proven Success Story

Upon installation  
Sept. 1999



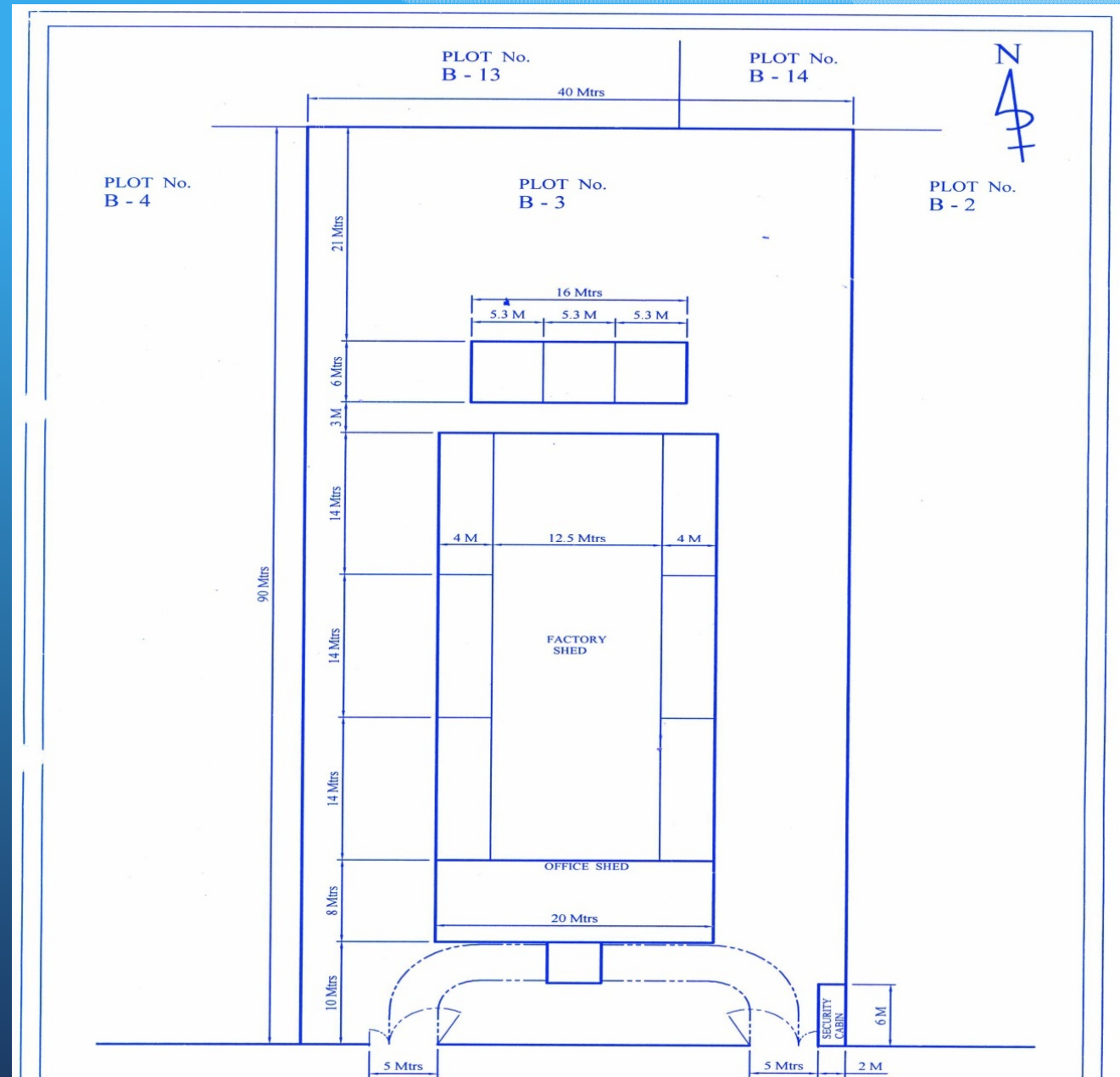
A decade on  
2009



- Total waste treatment cost works out to Rs. 8 per kg of waste treated
- The TMCC machine has a 100% track record with respect to spores testing in its 10 years of operation

Consolidated Waste Mgmt. Pvt. Ltd.

# PROPOSED LAYOUT



Consolidated Waste Mgmt. Pvt. Ltd.

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