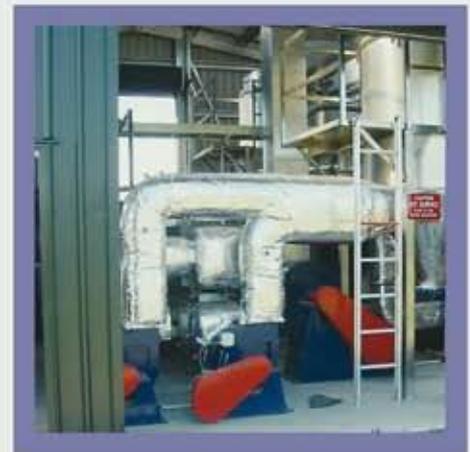




STERM™

SUSTAINABLE SLUDGE ELIMINATION

- Unique thermal drying process
- Converts wet sludge to sterile fuel
- Fuel provides energy for the system
- End product is an inert sand/ash
- Elimination, not just disposal, of toxic waste
- Economical and environmentally friendly
- Positive triple bottom-line impact



INTRODUCTION

The STERM™ system is a totally enclosed thermal sludge dryer operating on a complete thermal cycle that takes dewatered sludge through its unique drying process and converts it into a sterile fuel. The fuel created is then recycled back through a special combustion process to provide energy for the system.

All air that has contacted the sludge is passed through a high-temperature sterilisation zone to ensure complete destruction of all organic gases and odours.

The end product of inert sand/ash from the combustion of the fuel represents only 7% of the wet volume entering the plant (at 20% solids) and has commercial off-site uses.

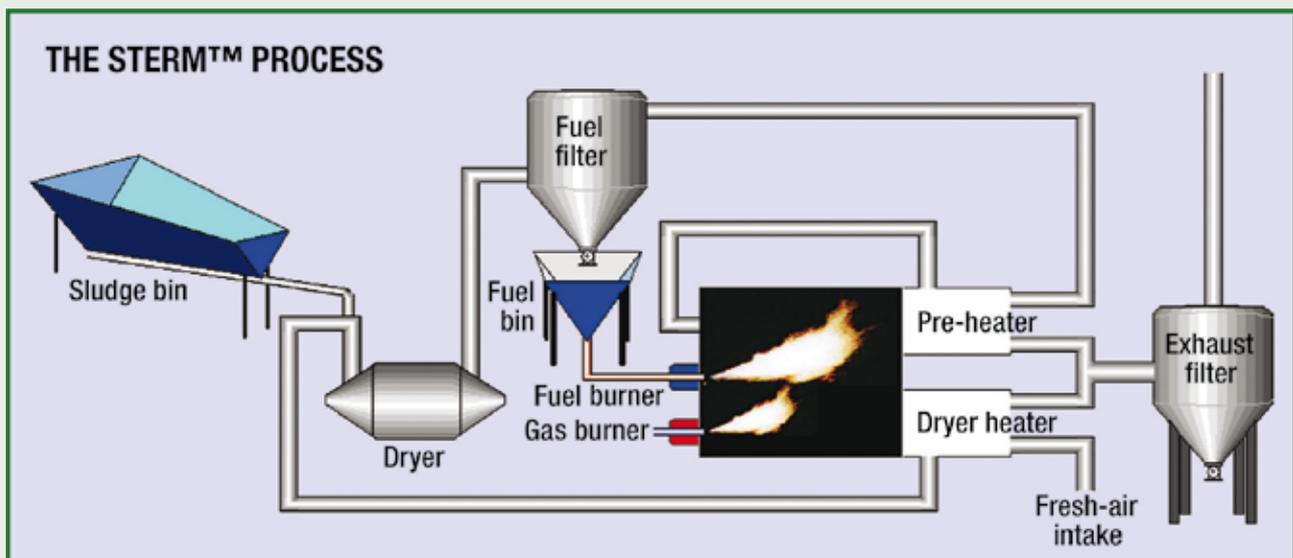
Control of emissions and elimination of odour – important environmental considerations – are also confirmed.

THE SYSTEM

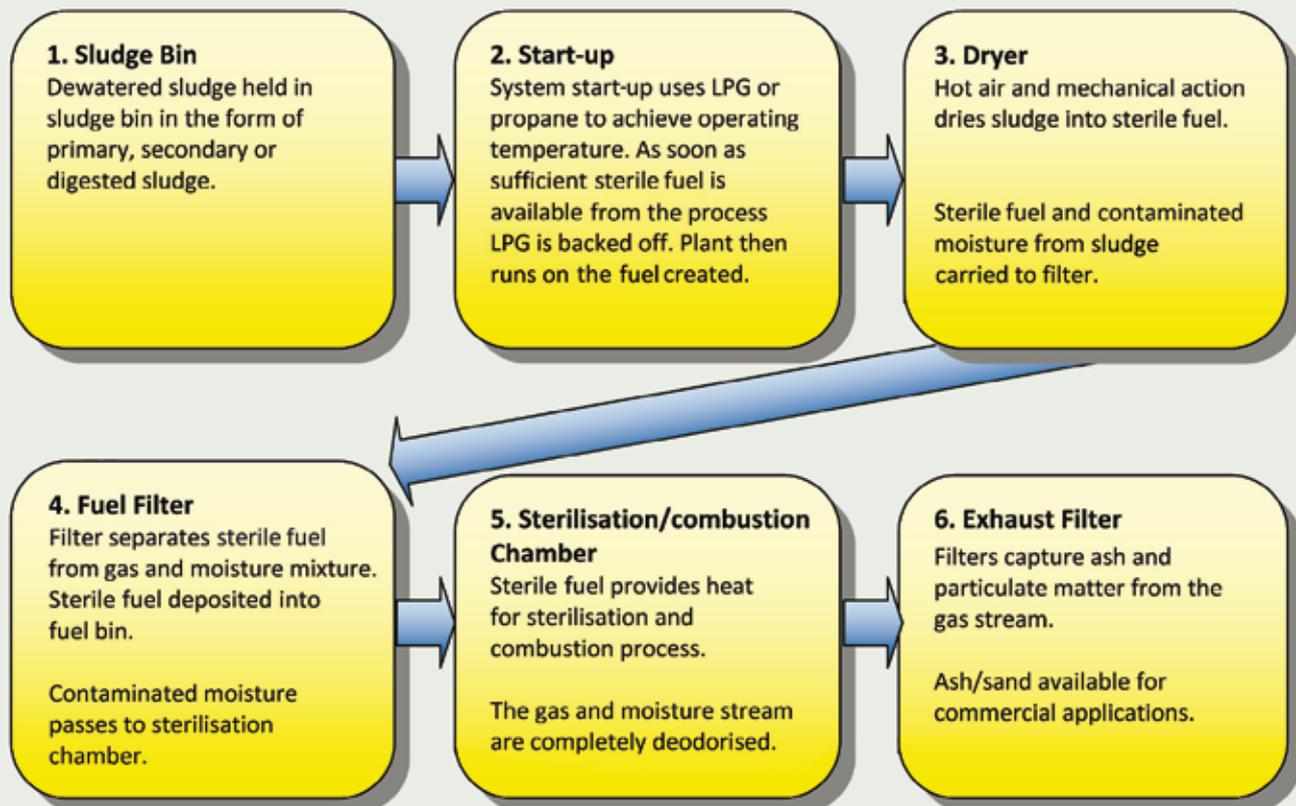
- Is designed to process up to 100 tons of dewatered sludge per day per unit
- Has a very small physical footprint (12 x 18 metres)
- Is modular and can be built in parallel to meet any demand created by increased capacity/population
- Has significantly lower operating costs
- Creates sterile fuel from the sludge
- Produces an inert sand/ash end-product that has commercial uses, e.g. roading aggregate

This new system has been piloted in New Zealand and EEL is now preparing to manufacture the first STERM™ 2000.

HERE'S HOW IT WORKS



THE UNIQUE STERM™ PROCESS HAS 6 STEPS



POSITIVE TRIPLE BOTTOM-LINE IMPACT

Economic

- Reduced capital expenditure and land-use cost for cities
- Low operating/maintenance costs
- Significant carbon fuel savings
- “Comparative easy fix” for treatment facility expansion, i.e. modular units in parallel
- Potential % reduction in user charges/tax

Social

- Reduced land use
- By-product is inert ash/sand, therefore no risk of pathogens, drug residues and other undesirable substances leaching into surface and underground water or being carried as airborne dust into communities
- Eliminates landfill/land application health risks
- No odour from the STERM™
- No sludge to dump, therefore cleaner landfills

Environmental

- Fully enclosed thermal drying process
- The STERM™ process produces renewable energy
- The process is environmentally desirable and sustainable – low emissions, no more sludge to landfill
- Considerable carbon fuel saving – the system essentially makes its own fuel
- Significantly reduces production of greenhouse gases
- Requires significantly less land use
- The end product is an inert sand/ash, a sterile material with heavy metal components being contained within the ash itself. It can be used as an aggregate for the manufacture of cement, plaster products, or as road fill, etc, and does not require disposal.
- The STERM™ process produces surplus energy when processing primary (undigested) sludge.

BUSINESS MODEL

Enviro Energy's Design, Build, Own and Operate model provides an "easy fix" solution to the long-term problems associated with bio-solids management. Enviro Energy's STERM™ completely eliminates the bio-solids and can be easily located within the treatment facility grounds close to the de-watering equipment, reducing the need for trucking and landfill costs.

The DBOO model reduces the need for any major capital expenditure by the treatment facility which pays only for the bio-solids processed through the STERM™. Enviro Energy also takes responsibility for the removal of any by-products of the process.

LEARN MORE ABOUT STERM™

To understand more fully how Enviro Energy's STERM™ will provide a sustainable solution for the management of bio-solids, contact us today for more information.



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