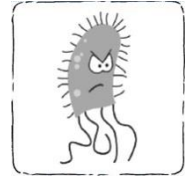
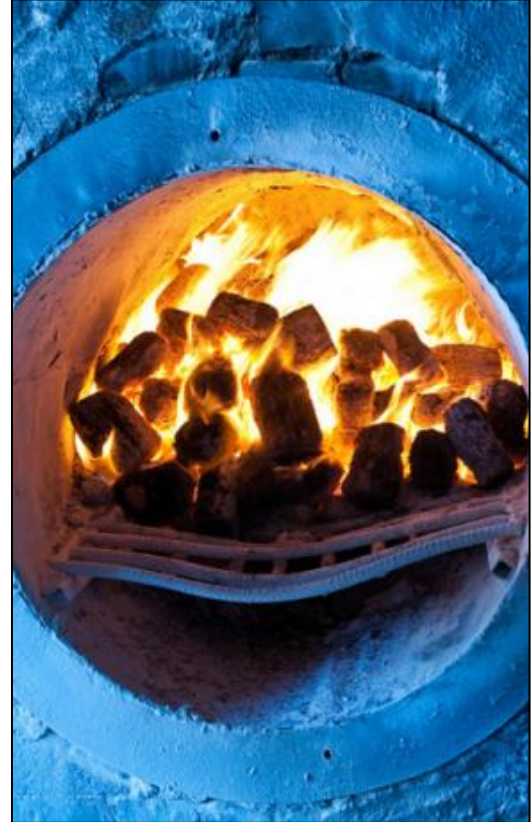




Incineration



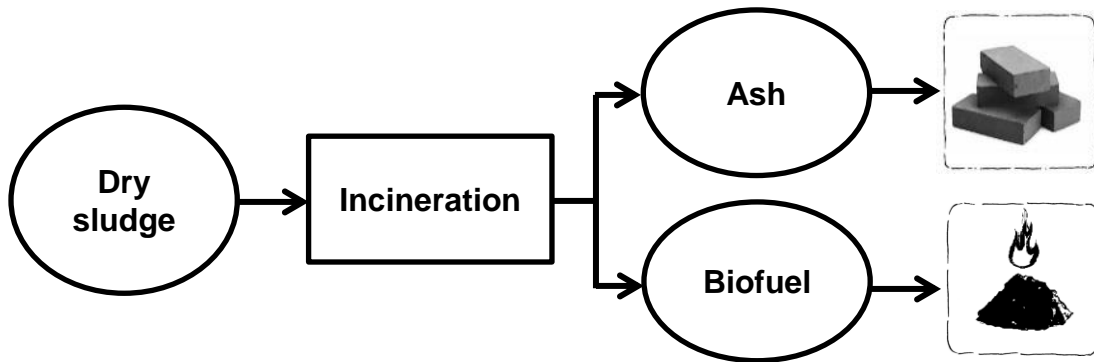
Cement industry in Dakar, Senegal (Credit: Eawag-Sandec)


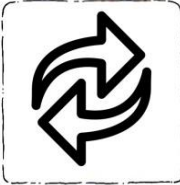


Kiln used for drying clay products in Kampala, Uganda (Credit: Eawag-Sandec)

- **Design:** Incineration means that dry faecal sludge is converted into ash at high temperatures (between 850-900°C). Incineration reduces the sludge volume and kills all pathogens. The ash can be buried, or used for construction material or as a cover material. Dried faecal sludge can fuel industrial processes, such as cement kilns. Incineration produces air emissions, which needs to be controlled to avoid negative environmental impacts.
- **Operation:** Sludge needs to be dewatered before it is incinerated.
- **Time and energy required:** Incinerating dry faecal sludge takes seconds to minutes. It takes some energy to ignite the sludge, but then it should burn on its own and the net energy is positive.

Treatment Technology Description



Treatment Objectives	Pathogen Inactivation	High
	Dewatering	High
	Stabilization/Nutrient Management	Yes
Pathogen Inactivation		<ul style="list-style-type: none"> • Pathogens are exposed to very high temperatures, which kills everything.
Level of Development		<ul style="list-style-type: none"> • Sludge incineration is being transferred from wastewater treatment. • There is very limited experience in design, operation, and maintenance for faecal sludge treatment.

References

Strande, L., Ronteltap, M. & Brdjanovic, D. (2014). *Faecal sludge management: Systems approach for implementation and operation*. London, UK: IWA Publishing. Retrieved from www.sandec.ch/fsm_book