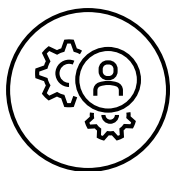


SAFE & EFFICIENT SHUTDOWN AT WASTE-TO-ENERGY PLANT IN THE UAE



BACKGROUND

Customers needs

The background situation

This Waste-to-Energy customer in the UAE is an industrial-scale facility. Since its greenfield commissioning, where Calderys provided full refractory engineering support, the plant has become a benchmark for sustainable energy in the region.

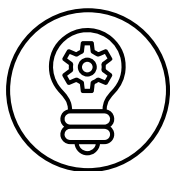
In May 2025, the plant underwent a planned shutdown of its incinerator to carry out critical refractory maintenance. This annual operation is essential to preserve equipment performance, safety, and environmental compliance.

The request from the customers

For this 2025 shutdown, the customer requested:

- Supply of high-performance refractory materials suited to the harsh conditions of municipal waste incineration.
- Quality assurance and Quality control supervision of the refractory works to ensure adherence to quality and safety standards.
- Accurate and consolidated shipping documentation aligned with their logistics and compliance protocols.
- On-time delivery of all materials, despite a very short window for planning and execution.

Installation was managed by a third-party contractor engaged directly by the customer.



CONCEPT

Calderys solution

Analysis of the customer request

The plant environment presented several technical and logistical challenges:

- Incineration conditions require durable materials with high resistance to thermal shock, abrasion, and chemical attack.
- Shutdowns are time-sensitive — delays in supervision or material supply could have serious operational consequences.
- Continuous improvement was a key driver: the customer was open to technical proposals for future enhancements.

Description of the solution developed by Calderys

Material supply:

Calderys supplied a robust portfolio of monolithic and insulating products, including:

- **CALDE® CAST LW 116 C/G** – Lightweight insulating castable
- **CALDE® PLAST REDD RAM** – Plastic ramming mass
- **CALDE® SOL CAST A 50 SZ** – Conventional dense castable
- **CALDE® FLOW LS 70 & LF 50 A** – Flowable castables
- **CALDE® GUN B 85** – Gunning mix
- **CALDE® TROWEL S 80** – For localized repairs
- **Mastic Mouldable** – For sealing difficult geometries

Insulating and anchoring accessories included:

- Ceramic fiber blankets, H-1100 insulation boards, and ceramic/steel anchors (VH & YS types)

Calderys' supervision services ensured a smooth project operation:

Calderys experts were deployed on-site throughout the 8-day refractory phase (within a 14-day total shutdown), providing:

- Quality assurance and control.
- Daily inspections.
- Supervision of casting and tile installation (including SiC tile areas).

Innovative solutions proposed for a continuous improvement of the maintenance process:

Calderys also proposed the use of Sparecast, a monolithic solution to replace SiC tiles. The product is currently under evaluation for future upgrades.



RESULTS

Concrete benefits

Benefits brought by Calderys' solutions

Operational Continuity

The customer's incinerator was brought back online without delay, ensuring no service interruption.

Customer Satisfaction

Calderys received a formal certificate of appreciation from the client recognizing the quality of supervision and reliability of supply.

Trusted Partnership

Having partnered since the plant's commissioning, Calderys reaffirmed its reputation for consistency, safety, and technical excellence.

Foundation for Innovation

With Sparecast under review, Calderys is supporting the plant's long-term goal of improving durability and streamlining future shutdowns.



SUMMARY

Recap of the solution

Services - Expertise

With proven experience in critical shutdowns project, the Calderys team delivers more than just products — we offer full lifecycle support. From tailored engineering and quality supervision to onsite technical guidance, we ensure smooth, safe, and efficient refractory execution. Our commitment: hands-on service that drives reliability, safety, and long-term performance for energy producers.



THANK YOU FOR YOUR ATTENTION

Visit **www.calderys.com** for more information
or connect with us:

 **www.linkedin.com/company/calderys/**

 **www.facebook.com/calderys/**

 **<https://x.com/calderys>**