Case Study

Incinerator repair

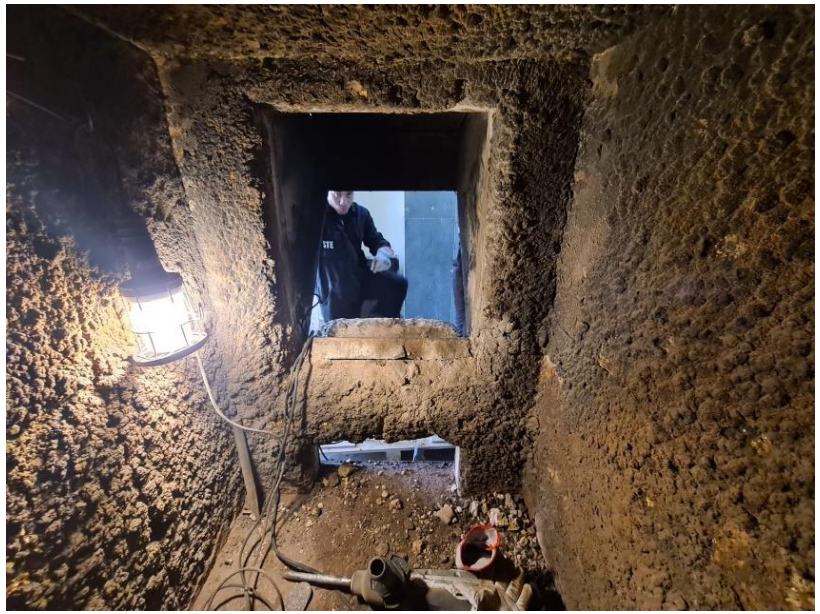
Refractory replacement

Site	Setúbal - Portugal	**Situation**
Activity area	Incinerator repair	
Year	2023	Incinerator refractory repair, on board a vessel berthed at Lisnave Shipyard – Setubal. Incinerator type ATLAS.

Challange

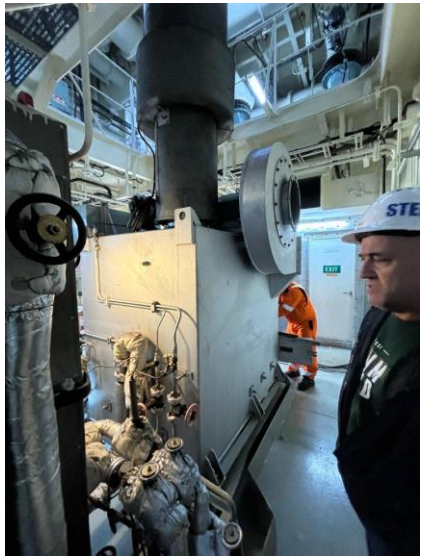
The Incinerator had several damages on both combustion chambers refractory walls and burner dumper, which needed to be completely rebuilt.

The equipment was opened and dismantled. The old refractory was broken and removed.



Incinerator inside view (Primary Chamber and Doors)

Waste Sluice Feeding Door before rebuilding



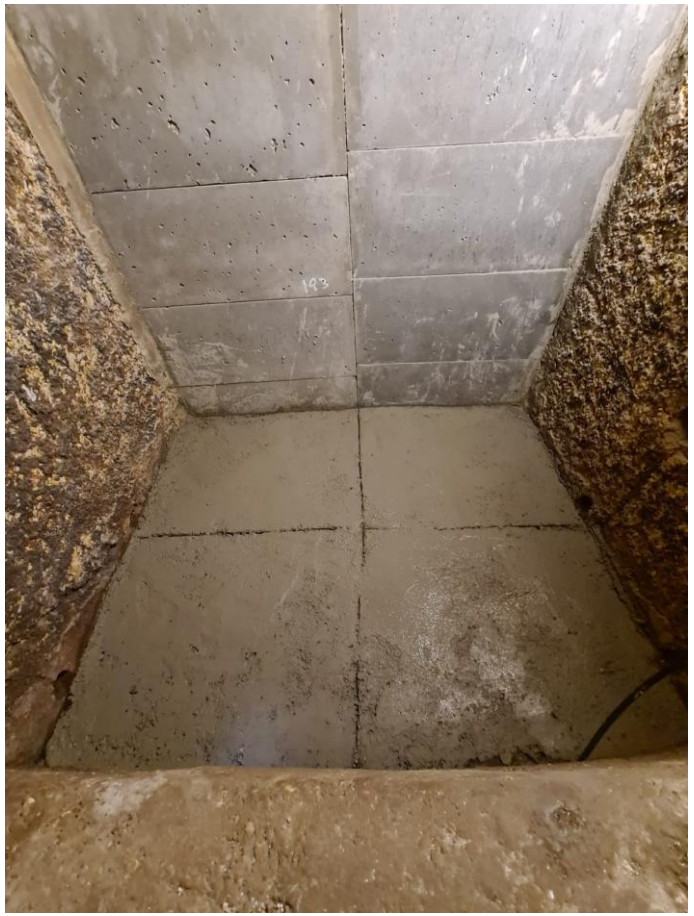
Initial inspection of the Incinerator

Action

1. Removal of debris. The critical corrosion points and damages areas were repaired, with new steel inserts and welding.
2. The internal steel anchors were renewed (necessary to support the new refractory castable).
3. The Big and Small Partition Walls were rebuilt, according to the original configuration.
4. On furnace walls and floor, as per the Maker's Instructions, it was applied aprox. 450 kg of new refractory castable (type Calde Patch PB 82 U, AbCrete A60 Cast and Calde Plast Superal X AB).
5. The walls were kept drying for about 12 hours with the burner shutters opened to allow circulation of air.
6. A final inspection and test run were performed with good results. No defects or cracks were found.

Work in progress. Repair of the walls

New refractory castable application



Rebuilding walls and floor

View of the new Big Partition Wall

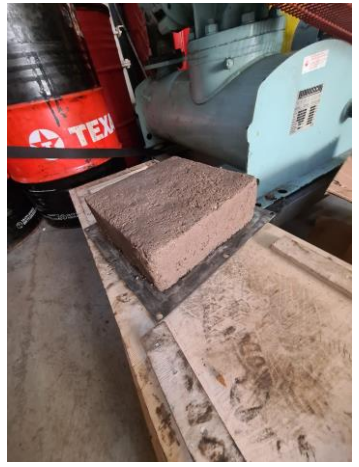
Ash Door already renewed

Results

The job was successfully concluded with an acceptable result.

Another successful completion.

New Secondary Chamber wall



Rebuilt Secondary Door

> *"…please find signed Service Report attached. We appreciate your great job onboard our good vessel."*
>
> *Junior Vessel Manager*
> *Fleet Management BRA*