

# HPFurnOKare

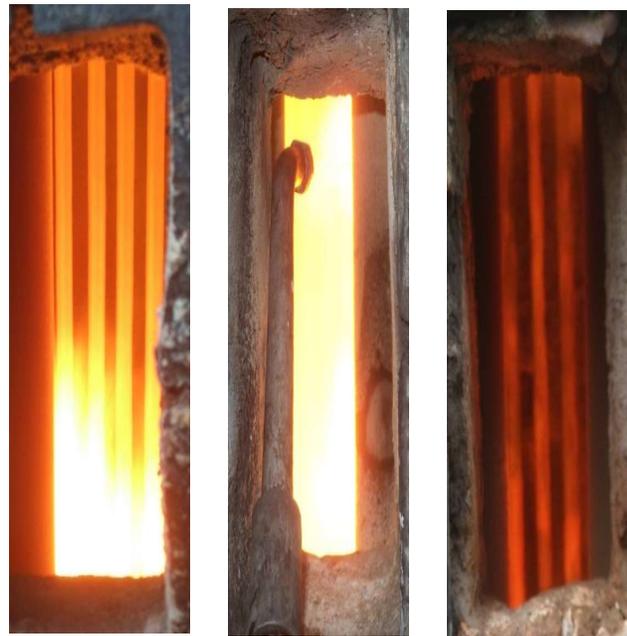
## Furnace-Friendly Online Descaling Solution

Furnace tube (external) scaling is a commonly encountered problem in CDU heaters in refineries. The scales form thick deposits on the external surface of tubes. This deposition results in increase in severity of operation and the bridge-wall temperature by 50–150°C. There are only three options available to the refiners:

- Reducing the throughput – Results in loss of GRM.
- Offline Cleaning – Shutdown
- Online cleaning of the furnace tubes without affecting the other refinery operations.

The first two options result in loss of GRM. Online Scale removal is the only economically viable operation for the refiners. At present, the Online cleaning service is offered by two overseas companies. Thus, there is a need for developing low-cost indigenous chemical and cleaning process to remove the scales.

HPCL has developed HPFurnOKare, an online furnace cleaning chemical formulation and cleaning process. HPFurnOKare is very effective in online descaling and does not affect the refining operations.



**Before cleaning During cleaning After cleaning**

Currently, HPFurnOKare is being used in HPCL (Mumbai and Visakh), OMPL, MRPL and IOCL Mathura refineries.

HPFurnOKare : Make-in-India Product/Service for the Online Cleaning of Furnace Heater Tubes.