

## The effects of long time treatment on flue gas in refineries' furnaces

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**Abstract** Liquid or gaseous combustibles proceeding from technological processes, burnt in the refinery furnaces, lead to decrease the air pre-heater performances of the furnace, foul the pre-heater, having as a result soaring expenses. Proper substances can be used as additives for liquid fuel or for the treatment of flue gases to eliminate this phenomenon.

The product for the treatment of flue gas is sprayed directly in the burner chamber of the furnace, where it suffers a thermal decomposition, resulting substances which eliminate the deposits and reduce the corrosion rate.

In this paper, we present the results of a case study: the treatment of flue gases at the furnace 7H1 – Crude distillation unit - PETROM – OMV refinery ARPECHIM Pitesti and to the furnaces 100 H1 and 100H2 – Crude distillation unit ROMPETROL REFINERY – PETROMIDIA. The flue gas treatment effect is emphasized by monitoring the temperature of the preheated air at the said furnaces.

*Keywords:* flue gas treatment, distillation unit, furnances, heat transfer rate

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