

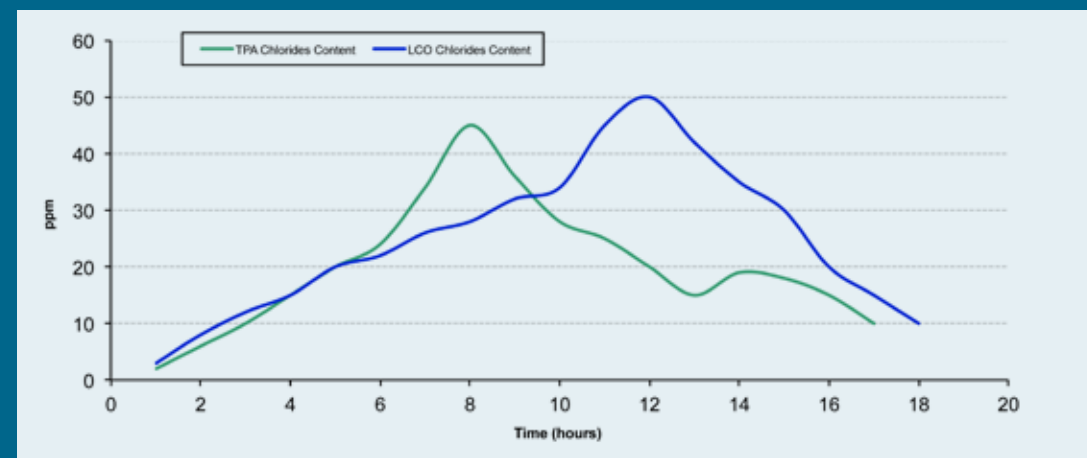


PREVENTS and REMOVES

*Acts by removing
the deposit already
formed and preventing
a new deposition*

CASE HISTORY

The FCC Unit of a European refinery with a capacity of 5.5 million tons/year. The high amount of deposit on the upper trays of the Main Fractionator caused an increase of Delta pressure in the column, thus resulting in a reduction of the top pump-around flow rate. CHIMEC Salt Dispersant was added in the top pump-around system. The treatment was monitored by means of chlorides content and conductivity, measured on the Light Cracking Oil stream and on the top pump-around. After only a few hours, the constant reduction of Delta pressure in the column confirmed the effectiveness of this treatment and completion of the system cleaning, without any interruption or reduction in the production capacity of the FCC unit.



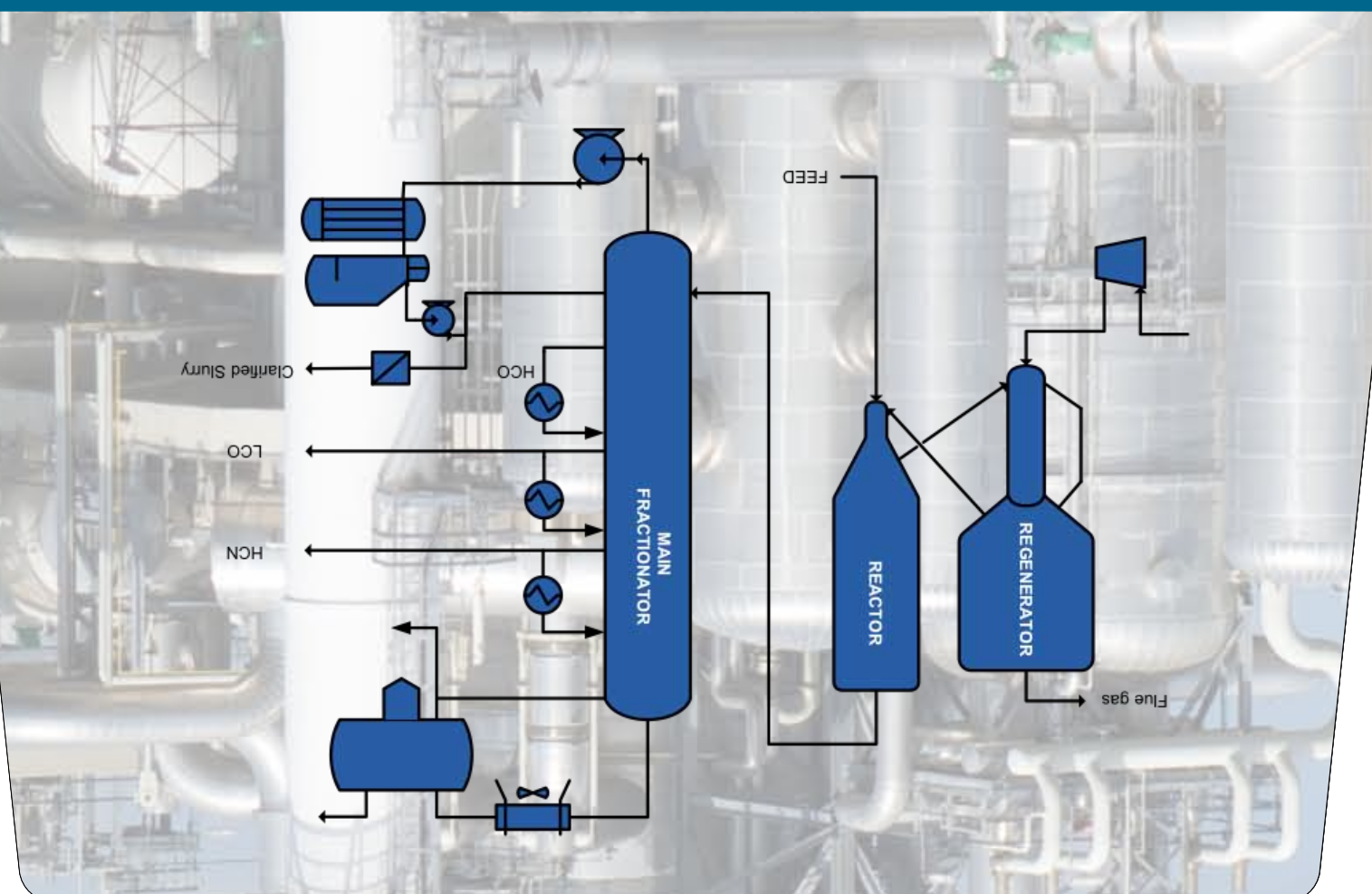
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AN EXCLUSIVE CHIMEC TECHNOLOGY TO REMOVE AND AVOID SALT DEPOSITION IN ANY REFINING PROCESS

THE SALT DEPOSITION

Inorganic salt deposition in refinery plants can cause widespread operational malfunctions resulting in profit losses. This phenomenon may occur in any plant processing streams rich in HCl, H₂S and NH₃, such as FCCU, CDU, DCU, Hydrotreating and Hydrocracking Units etc.

THE NEGATIVE EFFECTS OF SALT DEPOSITION

Salt deposition leads to fouling build-up and under-deposit corrosion; these issues may upset the unit operations in several ways:

- Increasing in system pressure drop, hence throughput reduction
- Lower efficiency of pump-around and overhead heat exchanger system
- Lower fractionating efficiency
- High corrosion rate of the system
- Higher FCC Reactor/Regenerator pressure, hence an increased delta coke
- Reduced Wet Gas Compressor capacity

THE REMOVAL OF SALTS WITH TRADITIONAL METHODS

Traditional strategies to remove salt deposits, e.g. water washing, increasing overhead temperature or forcing water condensation in column, have been used with different levels of success. Nevertheless all these procedures imply throughput reduction and production out-of-spec.

THE SOLUTION: CHIMEC SALT DISPERSANT

CHIMEC Salt Dispersant is a unique and patented technology, able both to prevent salt deposit formation and to remove the already present ones. With a continuously growing number of successful references, gained in several refining processes, CHIMEC Salt Dispersant has proven its reliability and effectiveness in the salt deposition management.

ADVANTAGES

If compared to the common approaches, the application of CHIMEC Salt Dispersant gives the following advantages:

- Lower maintenance cost
- Higher flexibility in processing critical feed
- Improved plant production flexibility (Diesel maximization & undercutting the FCC naphtha)
- Smooth main fractionator operation, no throughput reduction
- Wash water saving (cost saving & improved SWS efficiency)
- No impact on downstream unit (fully organic)