
Question 32: What are your current practices and experiences of performing online cleaning of heat exchangers versus offline cleaning?

SAM LORDO (Nalco Champion)

To achieve a good online cleaning (with the exchanger bypassed by not pulled), it is imperative to have nozzles on the inlet and outlets that are large enough to facilitate the circulation of a heat cleaning solution or steam with a cleaner. Recovery of heat duty is depended on the velocity of the cleaner, the foulant material, and whether the cleaning solution actually came in contact with the foulant (100% fouled-off exchangers are hard to clean online). Typically, online cleaning can be used successful and recover 60 to 80% of the flow or duty. Offline cleaning is more thorough, if done properly and recovery is routinely higher.

RON PARISE (Nalco Champion)

We have seen good success through the continuous application of one of our cleaning chemicals at low dosages with some online exchangers, particularly B/E (bottom entry) exchangers in desalters. For offline cleaning, it is critical to have sufficiently sized injection nozzles/circulation nozzles (at least 2" diameter) to afford enough turbulence with the cleaning solution to provided effective cleaning of the exchanger.

Print as PDF:

Tags

[Coker](#)

[Distillation](#)

[Fouling](#)

[Heat Exchangers](#)

[Naphtha Hydrotreating](#)

[Operations](#)

[Reactor Vessel](#)

Year

2016