

ON-LINE HEAT EXCHANGER CLEANING METHOD

Abstract

A method for the on-line cleaning of a heat exchanger used with petroleum process fluids which create coke deposits of asphaltenic origin on the exchanger tubes. The asphaltenes are removed by re-dissolution in a solvent oil of high solubility power for the asphaltenes. Certain asphaltenic crudes are useful as solvents in view of their chemical similarity to the asphaltene coke precursors; also useful are refined petroleum fractions such as gas oils which are also characterized by their solvency for asphaltenes. The solvent oil may be admitted to the heat exchanger following withdrawal of the process fluid and then allowed to soak and dissolve the asphaltene coke precursors after which the resulting solution may be withdrawn and the exchanger returned to use without being at any time disconnected from its associated process unit.