



CASE STUDY

INDUSTRY: REFINERIES



CUSTOMER: Greenergy

Greenergy

LOCATION: Immingham, United Kingdom

BACKGROUND: Due to the corrosive nature of fluids in this biodiesel refinery, steam heat exchangers and other steam equipment have a high risk for leaking fluids, like vegetable oils, into the condensate system. Leaking may lead to hazardous situations when the contaminated condensate reaches the boilers.

SCOPE OF WORK: During an audit, Armstrong International selected 10 critical areas in the condensate return system. By measuring turbidity of the condensate from sampling points in these areas, Armstrong quickly identify the source of the condensate contamination. In case of contamination, condensate will automatically be diverted to a contaminated condensate receiver, which provides sufficient time to isolate or shut down the source of the contamination.

All sampling lines were taken to a centralized skid mounted condensate sampling unit with a turbidity sensor. Condensate samples were cooled using Armstrong MTS-300 heat exchangers and Armstrong OB-31 temperature controllers.

BENEFITS: This project was part of a Basic Design Study on how to connect the site to a new external biofuel-fired boiler house. Greenergy recognized improved safety and reliability of the condensate return system and the new steam boilers by avoiding contaminating the condensate with vegetable oils.

