

SYSTEM AND METHOD FOR OIL FUEL BURNING INTEGRATED COMBINED CYCLE POWER GENERATION

ABSTRACT

A light portion is extracted from feed oil by a separation system. The light portion is then subject to a hydrotreatment to obtain impurity-removed fuel oil which is stored in an intermediate tank. A residue of the feed oil after extraction of the light portion is gasified to obtain syngas ($H_2 + CO$ gas) which is used as basic fuel for power generation in a power generation system. The fuel oil is fed to the power generation system as auxiliary fuel for supplementing the power generation based on the syngas. The power generation system includes a plurality of gas turbines and generators. The number of the gas turbines to be driven by the fuel oil is controlled to adjust the power generation amount depending on demand.

Figure 1



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