

ABSTRACT

System and Method for Combusting High-Moisture Fuel to Generate Steam

A process for combusting a high-moisture fuel to generate steam in which the high-moisture solid fuel is first dried by contacting with an oxygen-depleted gas stream while being heated by indirect heat exchange with a recirculating thermal fluid. The dried fuel is then combusted with a combustion air stream to produce a combustion products stream whose heat first is used to generate steam, and then to preheat the combustion air stream by indirect heat exchange in which a portion of the combustion air stream and/or a portion of the combustion products stream bypasses the heat exchanger. The combustion products stream also provides heat to dry the solid fuel via the recirculating thermal fluid.

[No suitable figure]