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(54) Title: PRETREATMENT AND PRE-COOLING OF NATURAL GAS BY HIGH PRESSURE COMPRESSION AND EXPANSION

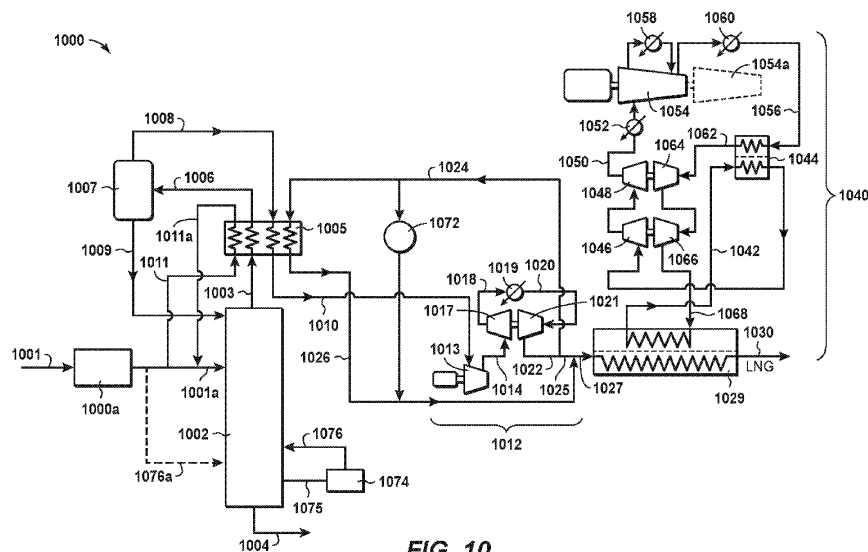


FIG. 10

(57) Abstract: A method and apparatus for producing liquefied natural gas. A portion of a natural gas stream is cooled in a heat exchanger and combined with the natural gas stream. Heavy hydrocarbons are removed from the combined natural gas stream, and the resulting separated natural gas stream is partially condensed in the first heat exchanger, with a liquid stream separated therefrom. The natural gas stream is warmed in the first heat exchanger and then is compressed and cooled. The resultant cooled compressed natural gas stream is expanded, thereby forming a chilled natural gas stream that is separated into a refrigerant stream and a non-refrigerant stream. The refrigerant stream recycled to the heat exchanger to be warmed through heat exchange with one or more process streams associated with pretreating the natural gas stream, thereby generating a warmed refrigerant stream. The warmed refrigerant stream and the non-refrigerant stream are liquefied.

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**Declarations under Rule 4.17:**

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