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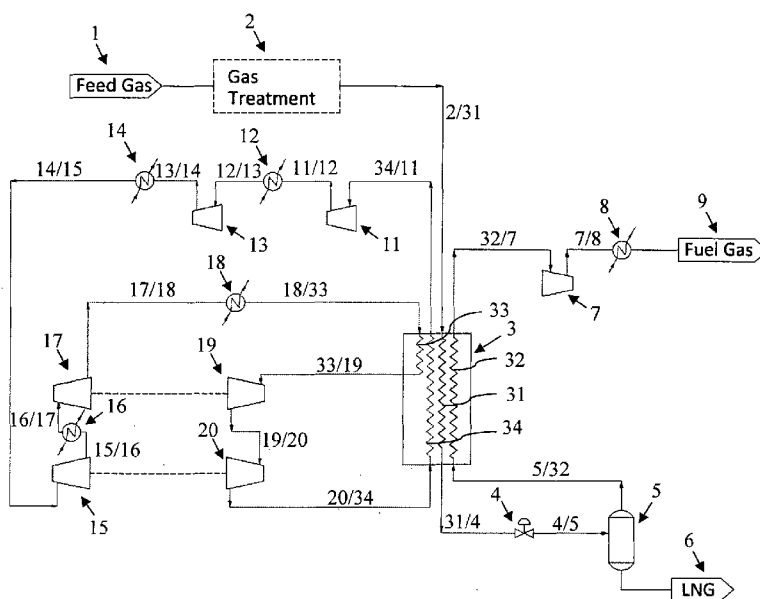
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(54) **Title:** SYSTEM AND METHOD FOR NATURAL GAS LIQUEFACTION



(57) **Abstract:** The present invention provides an LNG production system and method with improved refrigeration. The refrigeration is achieved by a refrigeration device comprising a plurality of refrigerant compressors (11, 13, 15, 17) configured into a series arrangement to perform multi-stage compressions of a refrigerant, a plurality of aftercoolers (12, 14, 16, 18) each of which being coupled to each of the plurality of refrigerant compressors to cool the compressed refrigerant, a plurality of turboexpanders (19, 20) coupled to the last aftercooler (18) and configured into a series configuration to perform multi-stage expansions of the compressed refrigerant, and a plurality of refrigerant heat exchange means (33, 34) coupled to both the first (11) of the plurality of refrigerant compressors and the last (20) of the plurality of turboexpanders, so that all components form a close refrigeration cycle.