LIQUEFACTION SYSTEM AND METHOD FOR CONTROLLING TURBINE INLET TEMPERATURE OF LIQUEFACTION SYSTEM

ABSTRACT

[Summary]

[Problem] The present disclosure provides a liquefaction system which enables a gas temperature at an inlet of a turbine to be measured and enables a warning output temperature set value and an emergency stoppage temperature set value to be varied correspondingly with an operating state.

[Solution] A liquefaction system 100 comprises: a temperature setting unit T5 for setting an inlet gas temperature on entry to a cold turbine; a control valve PV5 for controlling an amount of gas fed to the cold turbine, correspondingly with an inlet gas temperature T1 measured by the temperature measuring unit T5; and a control unit 200 which compares the inlet gas temperature T1 measured by the temperature measuring unit T5 with a warning temperature set value and a margin, and sets a first operating state when the inlet gas temperature T1 is equal to or less than the warning temperature set value and the margin and also sets an emergency stoppage temperature set value at the warning temperature set value and the margin, and sets a second operating state when the inlet gas temperature T1 is greater than the warning temperature set value and the margin, the control unit performing control in response to the second operating state to make a degree of opening OP1 of the control valve PV5 greater than a degree of opening OP2 during the first operating state in order to lower an inlet pressure of the cold turbine, and performing control in response to the first operating state to make the degree of opening OP2 of the control valve PV5 smaller than the degree of opening OP1 during the second operating state in order to raise the inlet pressure of the cold turbine.

[Fig. 1]