

IMPROVEMENT of TECHNOLOGY of VALUABLE GAS COMPONENTS SPLITTING BY USE OF COOLING PROCESSES

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ABSTRACT

In this report the problems of improvement of cooling processes using technology in the field of gas dehydration, increase of LNG production efficiency, well as widening of their using possibilities are reviewed.

Experience of introduction and exploitation of cooling processes allows to:

- improve operating technologies for more complete hydrocarbons' splitting such as C₂, C₃, C₄ and C_{5+B};
- increase number of such units;
- get coolants on the base of propane-butane mixture (PBM);
- efficiency increase of using of cooling processes in gas dehydration;
- work out of the technology for getting new types goods from ethane, propane, butane with increase of products assortment.
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Taking into account the above the projecting of new objects of gas processing is carried out. On the base of Shurtan gas-treating plants it is planned to create a complex on LNG production consisting of three new units by total volume of 9 billion m³ of gas per year after zeolite cleaning.

Planing construction of the zeolite dehydration and gas purification units at Mubarek Gas processing plant with capacity of 4 billion m³ per year also allows to apply of the turbine expansion engine and further rectification of mixes for splitting of LNG.

Manufacturing application of the indicated projects will allow to increase LNG production volume by 280 thousands tons per year and by 90 thousands tons per year of gas condensate. Recoverable liquid hydrocarbons serve as a fuel for automobiles and life needs, coolant's and feedstock in getting different products needed for national economy that imported from abroad at present.