Dynamic Process Modeling of 2-columns in LNG Fractionation Process using INDISS

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After heavy hydrocarbons were separated from natural gas in case of rich gas, light components C1 and C2 are considered to meet design specification and improve these products for other operation using continuously. This operation names fractionation unit including integration of column distillations. In this work, two columns are designed and modeled namely, demethanier and deethaniser. Demethaniser separates mainly methane to overhead product, and heavier hydrocarbons to bottom product which controls methane to be less than 0.25 % mole fraction, is fed to deethaniser. Mainly ethane is separated to top product of deethaniser and propane is limited to be less than 0.5 %mole fraction. Ethane is also limited to be less than 0.05 % mole fraction at bottom product of deethaniser. In order to get these specifications, the process needs to be designed and modeled using efficient simulator. Indiss simulator is a program to model fractionation process and demonstrate performances of integrated model to operate following specification.