Design of Heat Integration Network for Industrial Complexes

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Various low temperature energy resources such as low pressure steam, warm water and etc. are produced in Yeosu petrochemical complex. Such energy resources are usually disposed since they have not enough energy to be economically used. On the other hand low pressure steam is produced in some companies. From the concept of Eco-Industrial Park (EIP) the energy cost can be reduced by integrated energy network with waste heat of other companies. In this study, we propose the concept of heat integration network and apply axiomatic design theory to construct heat integration network of Yeosu petrochemical complex.