ABSTRACT

Hydrant is fire fighting installation established permanently in form of pipeline network contained continuously pressured water which is ready to fight fire (Department of Employment and Transmigration of Republic of Indonesia/Fire Anticipation K3 Surveillance). PT Petrowidada and PT Eternindo Nusa Graha have installed their own hydrant system and since company management have been merged then hydrant pipe interconnection to both hydrant systems will be interconnected.

Pipe interconnection planning will be performed by serial system where the system is head losses addition on both hydrant systems which have already possessed Head available from each pipe power. Pipe planning used was A-53 grade carbon steel pipe with 6” Nominal Pipe Size (NPS) and Pipe Schedule Numbers 40, connection method selected was by fleng. Of the planning for cost budgeting planning Rp. 35,667,972 were needed for pipe purchasing and installation.

Based on head addition calculation on each hydrant systems, PT Petrowidada was able to meet head need of PT Eternindo Nusa Graha and still has remaining head of 25.71 m. likewise PT Eternindo Nusa Graha is able to meet head need of PT Petrowidada and still have remaining head of 29.67 m. of the hydrant connection pipe designing it was expected that hydrant system ability which could support each other to meet performance in fire fighting in both companies.

Keywords: Hydrant system, pipe designing, head losses, fire fighting.