

Chadchai Tiansivakul 2010: Computer Aided Design in Foam Base-Fire Extinguish
System For Tank Farm. Master of Engineering (Fire Protection Engineering),
Major Field: Fire Protection Engineering, Interdisciplinary Graduate Program.
Thesis Advisor: Associate Professor Saree Svetsaerani, Ph.D. 172 pages.

In case of fire of fuels in tank farm are violent and very fast. The designing in NFPA 11, 11A, 16 standard fire fighting foam system to protect fuel tank requires many steps and complicated specifications that make mistakes. The steps of calculation and details were studied to develop this program with Microsoft Excel 2003 for personal computer.

Designer will input designed data, type of tank, injection methods, fluid details and fire fighting foam details. Program operates to choose basic designed data for calculation that are application rate, minimum discharge time and minimum number of discharge outlets. The next step is system calculation that giving final results are required flow rate to choose equipments for Foam System.

Required flow rate and pressure are used to choose the compatible pump with designed system and calculate the amount of fire fighting foam and water.

Student's signature

Thesis Advisor's signature

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