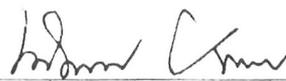


Kraisorn Balamongkol 2007: Safety Management of Gasoline Vapor Recovery Unit at Fuel Terminal. Master of Engineering (Safety Engineering), Major Field: Safety Engineering, Interdisciplinary Graduate Program. Thesis Advisor: Associate Professor Penjit Srinopakun, Ph.D. 151 pages.

The thesis of Safety Management of Gasoline Vapor Recovery Unit at Fuel Terminal has been studied about the risk assessment of the Vapor Recovery Unit Operation in the fuel terminal, to analyze process hazard in operational unit by Hazard and Operability Study -HazOp in order to minimize or remove potential risk from operation and that will improve safe operation procedure for all operators. The scope of study will include the use of Areal Locations of Hazard Atmospheres-ALOHA software to simulate the model of source release in order to study the vapor purging from the operation unit and determine the toxic volume into the human inhalation that should not exceed the criteria from Laws Requirement. The type of Vapor Recovery Unit in this study is Absorption Activated Carbon which can cause the ignition flame in the carbon filter, the normal rate of hydro carbon in vapor compound will be about 1,400 gHC/m<sup>3</sup> but after the absorption process the volume of hydro carbon will be reduced to 10 gHC/m<sup>3</sup> so the risk from fire explosion in the absorption process has to be managed and well planned. Integration with the simulation of Vapor dispersion program (Area Locations of Hazardous Atmosphere – ALOHA), it can define their effective emergency plan for fuel terminal. So all employees and contractors who work at fuel terminal that will be able to understand and follow up the emergency plan in accordingly. That will be the most effective inherent safety management at fuel terminal.



Student's signature



Thesis Advisor's signature

28, 03, 2007