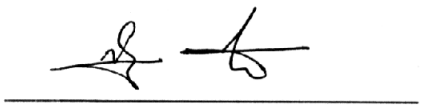
Sukitti Jadeevuti 2006: Hazard Risk Assessment for NGV Filling Station. Master of Engineering (Safety Engineering), Major Field: Safety Engineering, Interdisciplinary Graduate Program. Thesis Advisor: Assistant Professor Thumrongrut Mungcharoen, Ph.D. 167 pages.
ISBN 974-16-2158-2

This research is to assess the hazard risk for NGV filling station. The safety distance from hazard source according to EPA 550 – 1999 standard and risk failure according to the fault the analysis (FTA) are evaluated.

From the results of this research , it is found that the minimum safety distance and risk failure rate for the following four cases: (1) Leak dispersion with vapor concentration not exceeding 5,000 ppm are 3,647 m and 66.4 faults per year (2) Leak dispersion with vapor concentration in air not exceeding LFL of 5% are 842 m and 1.15 faults per year (3) Heat flux from fire not exceeding 5 kW/m^2 at 40 seconds are 63 m and 0.59 faults per year and (4) Explosive overpressure not exceeding 1 psi are 114 m and 1.15 faults per year.

The results of this research can be further used to specify the safety standard to prevent hazard to public from NGV filling station.



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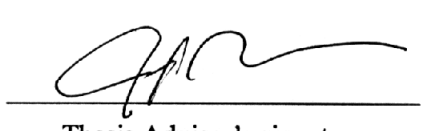

Thesis Advisor's signature

5 / 06 / 2006