

NOTES: U CAN BE POSITIVE OR NEGATIVE IN SIGN
 U IS ALWAYS POSITIVE
 POSITIVE INDICATES MOVEMENT FROM RIGHT TO LEFT

FIG. 1. INITIAL TRANSIENT ANALYSIS

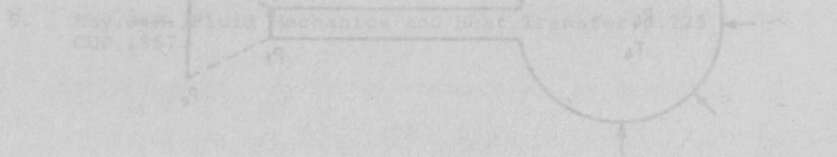


FIG. 2. THRUST ANALYSIS

Thermal Radiation Hazards from Large Pool Fires and Fireballs - A Literature Review

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Safe operation of fuel storage facilities requires a knowledge of the potential hazards in the event of accidental leakage and ignition of the stored liquid. This paper presents a review of published work on the fire hazards from steady and unsteady liquid pool fires, and on the combustion of fuel rich clouds that may occur following the rapid depressurisation of pressure vessels (fireballs). The relative importance of flame geometry, flame emissive power, and atmospheric attenuation in calculating thermal radiation levels is discussed. Additional factors which need to be considered when assessing hazards from fireballs are the time dependency of the size and emission characteristics as well as the time dependent response of personnel to thermal radiation. Preferred techniques for calculating radiation levels are proposed with suggestions for areas where additional research is desirable.