

PROPOSED CALCULATION METHODOLOGY:

1. ASSUME FREE DRAINAGE FROM CONDENSER TO ACCUMULATOR.
2. ESTIMATE BLENDED VOLUME OF FUEL GAS AND AIR IN FLARE SYSTEM DOWNSTREAM OF PSV-1 SUCH THAT $O_2: (CH_4 + O_2 + N_2) = 6\% \text{ V/V}$.
3. ASSUME PSV-1 LIFTS AND EVACUATES CONDENSER VOLUME (100% VAPOUR) INTO SYSTEM.
4. ESTIMATE DURATION OF RELIEVING EVENT BASED ON PSV-1 CAPACITY.
5. ESTIMATE MIXED VAPOUR COMPOSITION IN SYSTEM TOWARDS THE DETERMINATION OF AN APPROXIMATE HEATING VALUE.
6. EVALUATE SYSTEM HYDRAULICS BASED ON POST-RELIEF DENSITY, PRESSURE AND TEMPERATURE USING OLIPHANT'S EQUATION.
7. ESTIMATE PEAK FLOW RATE FOR BLEND RESULTING AT STACK TIP.
8. ESTIMATE RESULTING GROUND LEVEL RADIATION (GLR).

