

BASIS OF ESTIMATION OF EMISSION FROM D-741RELIEF VALVE ON OCTOBER 16, 1978

1. B. Hawkins observed emission for 3 minutes.
2. Relief Pressure Start: 170 psig
 End: 164 psig
 Average: 167 psig
3. Relief Valve Design 100,000 lb./hr. at 175 psig and M.W. of 62.5

$$100,000 \frac{\text{lb.}}{\text{hr.}} \times \frac{1 \text{ mole}}{62.5 \text{ lb.}} \times \frac{359 \text{ SCF}}{1 \text{ lb. mole}} = 574,400 \frac{\text{SCF}}{\text{hr.}}$$

$$574,400 \frac{\text{SCF}}{\text{hr.}} \times \frac{3}{60} = 28,720 \text{ SCF}$$
4. Pressure Correction of 167 versus 175 psig

$$28,720 \times \frac{182}{190} \cong 27,500 \text{ SCF}$$
5. Assume relief was 50% VCM and 50% H₂O.
6. Amount of VCM = 0.5 x 27,500 = 13,750 SCF
7. Weight of VCM

$$\frac{13750}{359} \times 62.5 = 2395 \text{ lbs. of VCM}$$

$$\cong 2400 \text{ lbs. of VCM}$$