
BAPE-2.5

Référence:

2. La sécurité terrestre et maritime et la planification des mesures d'urgence

Demande ou Question:

- 2.5 À la page 9-62 du rapport principal de l'étude d'impact (mai 2005), expliquez le détail du calcul de la formule ?

Réponse:

The following describes the detail of the Flashed Mass Calculation on page 9-62 of the EIS:

The amount of flashed mass is be calculated by assuming conservation of energy, thus the heat loss of the lower layer (heat loss when evaporating during roll over) must equal the heat of vaporization:

$$\begin{aligned}
 mC_p\Delta T &= M_{flash} \Delta H_{lat} \\
 \Rightarrow \frac{M_{flash}}{m} &= \frac{C_p\Delta T}{\Delta H_{lat}} \\
 \Rightarrow \frac{M_{flash}}{m} &= \frac{3433 \frac{J}{kgK} \times 5.5K}{5.12 \times 10^5 \frac{J}{kg}}
 \end{aligned}$$

Where,

m Mass of lower level [kg]

C_p Heat Capacity [J/kg K]

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M_{Flash}	Flashed off mass	[kg]
ΔT	Delta temperature for lower stratified level to reach saturated conditions	[K]
ΔH_{lat}	Heat of vaporization	[J/kg]