

**Vented Gas Definition**

The intentional controlled release of un-combusted gas containing hydrocarbon. It does not include fugitive emissions or vented streams that are primarily CO<sub>2</sub>.

**Flaring Definition**

Flaring is the intentional act of burning natural gas (through a flare or incinerator stack) that is not used, captured or sold due to technical or economic limitations, as part of well testing, or in emergencies due to safety concerns.

**1. Reportable flaring** includes all volumes of flared of gas including flash gas and/or tank vapour streams that are associated with continuous flaring/incineration during normal operations and flared volumes attributed to emergency or maintenance flaring. Reportable flaring **does not** include fuel gas used for purge, flare combustion management, or pilot fuel, or acid gas volumes which are continuously flared.

Or

**2. Reportable flaring** includes all volumes of flared of gas including flash gas and/or tank vapour streams that are associated with continuous flaring/incineration during normal operations and flared volumes attributed to emergency or maintenance flaring. Reportable flaring **does not** **includes** fuel gas used for purge and pilot fuel gas but not acid gas volumes flared or fuel gas which is used for flare combustion management (improve dispersion and increase heating value).

**Other Comments Relating to these definitions**

**Alberta**

For gas plants and other facilities we encourage companies to add fuel gas to improve combustion efficiency. There is a requirement for new facilities to meet a minimum heating value of 20 MJ/m<sup>3</sup> to help ensure complete combustion. Existing facilities that have not had problems with stable combustion and/or odours can operate as low as 12 MJ/m<sup>3</sup>.

Sour gas or acid gas flaring must be modeled to ensure that when gas is flared the Alberta Ambient Air Quality ground level objective for SO<sub>2</sub> is met. The maximum ambient level is 450 ug/m<sup>3</sup> SO<sub>2</sub> on a 1 hr average basis <http://environment.alberta.ca/0994.html> Fuel Gas will be added in cases where wider dispersion is needed to meet this requirement.

Any gas that is used as fuel must be reported as fuel gas in Alberta. The intent is that where gas is being used as fuel to improve combustion/dispersion or drive equipment it should be reported as fuel.

In Alberta, gas plants with small amounts of H<sub>2</sub>S in the inlet (<1 t/d sulphur equivalent) are allowed to flare acid gas on a continuous basis. This acid gas flared is reported as acid gas shrinkage.

Alberta restricts the amount of flaring that occurs over the year at gas plants to 0.5% percent of raw gas receipts. Volumes of acid gas which are continuously flared (as per approval) or volumes of fuel gas which are added to the flare are not part of this 0.5% restriction.

**British Columbia**

1. Alberta requirements related to minimum heating value, continuous acid gas flaring and upset acid gas flaring apply in B.C.
2. Fuel gas used for pilots, purge gas and vented gas sent to flare is reported as flared gas in British Columbia. There are two reasons for doing so:
  - a. Public perception – it is difficult to say that a facility is not flaring when there is a visible flame at the top of the flare stack.
  - b. Decision tree analysis to reduce/eliminate flaring applies to pilot / purge / vented gas. At many facilities, the biggest flaring reductions have resulted from changes such as improved flare pilot technology, optimization of purge gas rates, improved blanket gas regulation and repair of leaks to the flare system.