ESG and Flaring at Refineries

I would like to talk to you about the increase in flaring at the Refinery which the ESG has been highlighting in the press this past week. We had raised the possibility that there was some type of upset at the plant and that information should be provided by CEPSA to explain what is causing this heavy pollution. Our Spanish environmental colleagues have also made public statements on the matter and are demanding an explanation from the Refinery management.

Bucket Brigade International has provided information on flares and flaring at Refineries which we would like to share with you today. In a leaflet aimed at informing communities close to refineries, flaring is used to describe a naked (open) flame that is burning off excess gas. This usually occurs at oil refineries, as well as at certain chemical plants. Gases are generated when the process is not operating properly, when there is a loss of power or when gases are vented during maintenance. Far more flaring takes place at gas and oil production facilities than at refineries which is a blessing in this respect for us here in the Bay.

The main problems with flaring are that very large volumes of gases are released into the atmosphere over a short period of time. They are prone to problems of wind turbulence and inadequate time to burn the gases and cope with variable temperatures, which contribute to an “unclean” burn.

Canadian research also suggests that the number and volume of potentially toxic compounds released due to incomplete combustion of this type is much higher than expected.

Flares are designed to protect refinery equipment and blow gases beyond the immediate workplace area – they are not designed to protect the offsite public, ie surrounding populations and environment. Refineries regard flaring as a necessary safety device for getting rid of excess gas. If too much gas builds up, parts of the refinery could overpressure and explode. Some refineries however, flare more than they should, as this is an easy way to get rid of waste.

If a flare is smoky as the two incidences at CEPSA refinery have been this past week, then it is not a good flare, because what is being released is not being burnt completely, i.e. incomplete combustion. If a flare is smoky or the flame is remarkably high it should be reported and inspections should be made by the competent regulatory authorities.

There is sometimes a very strong smell associated with flaring and this is because many gases are released in the process. If the flare is “good”, only carbon dioxide (CO_2) and water are released. There are two gases that could cause a flare to smell – sulphur dioxide and hydrogen sulphide, both highly toxic in high concentrations.

Other toxins released during flaring can include:-

Particulate matter (soot)
and Benzene
both proven to be extremely harmful to health

So, is flaring per se bad for your health and for the environment? You may well ask yourselves this question when you see smoking flares at the nearby plant. If you consider that pollutants such as benzene, sulphur dioxide and hydrogen sulphide are commonly released in high volumes at such moments it is clear that nearby residents could be adversely affected with symptoms ranging from respiratory problems to nausea and vomiting The thick black smoke full of particulate matter or soot is known also to be carcinogenic and inflame or trigger problems in people already suffering from respiratory conditions.

It is also clear that flaring should only be carried out in emergencies and if this is what occurred in the last 6 days at the CEPSA plant which we photographed and made public in our local media then our Govt and the Spanish authorities should be asking the manager at the Refinery for an explanation of what exactly is going on.

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