MOSSMORRAN FLARE

The flaring that you sometimes see at FEP is safe, and a normal and vital part of keeping the plant running safely during unplanned operational interruptions or scheduled maintenance.

What happens at the plant?

ExxonMobil Chemical's Fife Ethylene Plant (FEP) is one of Europe's largest and most modern ethylene plants. It was the first plant specifically designed to use natural gas liquids from the North Sea as feedstock, which is supplied by the neighbouring Fife Natural Gas Liquids plant operated by Shell.

After natural gas is processed for the national grid to fuel our homes, the remaining stream containing ethane is transported to FEP where it is converted through a process known as cracking into ethylene.

Ethylene is used to produce everyday plastic products, ranging from household items (e.g. toothbrushes and food packaging) to parts for automobiles.

Why do you need the flare?

If our production is interrupted, the extra gas is routed to the flare system, which is designed specifically to handle such occurrences safely, like a safety valve in a home central heating system.

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How does the flare work?

During flaring excess gas is combined with steam and air and burnt off in an environmentally-sound manner to produce water vapour and carbon dioxide, similar to the burning of liquefied petroleum gases (LPG) in a camping stove.

We minimise flaring – natural gas liquids are a valuable resource, and we make every effort to restore operations as quickly and as safely as we can. We also work diligently to inform the local authorities and local community of the flaring because we understand that it can cause concern.

01 CLOUD REFLECTION

When our ground flares are used on a cloudy night, the light can reflect off the clouds, producing a glow in the sky that you are able to see from the surrounding communities.

02 STEAM

A white vapour may be seen around the flare, and this is actually steam that is injected into the flare system for clean combustion. The steam is visible even when there is no flaring, both at the flare stacks and our water cooling towers.

On rare occasions, there may be some smoke from the flare for a limited time. The smoke, which is mainly made up of carbon particles, occurs when there is a delay in the supply of steam and can happen when there is a sudden flow of gases to the system.

03 FLARE NOISE

Flaring may produce a low rumbling noise due to the active mixing of gas, air and steam.

Flare conditions are constantly monitored to maintain optimum conditions for clean combustion, and to minimise any noise.

04 MONITORING

We monitor and report any flaring that exceeds permitted thresholds to the regulatory authorities. In 2016 our regulatory compliance was rated as 'excellent' by SEPA.

Many years of rigorous testing by independent consultants on behalf of the Fife Council Mossmorran & Braefoot Bay Independent Air Quality Monitoring Review Group have shown that there is no link between flaring activities at Mossmorran and air quality in the local communities, which continues to meet national and EU air quality standards.

FLAME BURNING AT THE TOP OF ONE OF OUR HIGHEST TOWERS IS AN IMPORTANT PART OF FEP'S OPERATION

ExxonMobil

If you are interested in a visit or have any queries or concerns, please call 01383 737000 or email catherine.cubitt@exxonmobil.com