

## Methane Regulation

bp supports the development of regulations that focus on the most effective mitigation of methane emissions and encourages alignment with the OGMP 2.0 framework. The OGMP is now established as the premier global voluntary initiative with a significant European bias in both leadership and company participation. It balances ambition with credibility and is therefore a great basis for EU regulation.

We would like to offer our thoughts on two parts of the EU's proposed regulation: LDAR and flaring.

### **Methane leak detection and repair ('LDAR')**

We agree with the EU that methane leak detection and repair ('LDAR') campaigns are critical in the reduction of methane emissions from leaks, and that a minimum set of requirements is needed to ensure a level-playing field for operators. We welcome the offered flexibility in technology choice to support innovation.

The EU can maximize the monitoring effectiveness by focusing on the outcome of the system, as opposed to prescribing a monitoring frequency. The LDAR programme should be risk based, specific to the facility, consider processes, age and condition of plant, and be informed by previous surveys and assessments. Directed Inspection and Maintenance (as per OGMP1.0 TGD #2, published in 2017) moves the focus of LDAR to one that is both flexible and targeted. This, for example, recognises that the leakage sources tend to be weighted to certain process equipment, and components, and that therefore those areas of the plant / process should be the focus of LDAR. Prescribing a minimum frequency of quarterly campaigns goes beyond OGMP requirements and risks diverting effort and resources from where they are most needed, potentially compromising the intended emissions reduction outcome. While this minimum frequency will be appropriate in many cases, consideration of activity type and the sources present may warrant less frequent campaigns, e.g., pipeline and remote well pads with no wellsite equipment, or indeed more frequent campaigns, e.g., prevalence of leakage sources or more processing equipment with potential for leaks. Therefore, the need for flexibility should be factored into the regulation.

### **Flaring**

Given the significant contribution of methane emissions from incomplete combustion in flares to total methane emissions from the oil and gas industry, a flaring standard is needed. However, the requirements proposed in the regulation are not always feasible.

- Clarification is needed on what 'complete destruction efficiency' means. Complete combustion in the context of flares should be interpreted as what is achievable within the technical constraints of available technology. Current emission estimates and reporting requirements from flares assume a destruction efficiency of 98%. Whilst there is increasing evidence that some flares can perform significantly better, there is a natural variability in flare destruction efficiency driven by various factors such as wind conditions, gas composition and flow rate. Considering these limitations, we suggest that the regulation mandates a flare efficiency of at least 98%, stipulated within reasonable tolerance e.g., long term averages, percentiles and ranges. Reference methods for determining flare efficiency are urgently required to support this mandate.
- Flares are primarily safety devices and must remain in operation for safety and integrity purposes. In many instances the safe inspection of flare stacks will require isolation and / or plant shutdown. This is not reasonably practical on a pre-defined frequency basis and instead should be linked to scheduled outages. The regulation should account for the risk profile of the asset, and technological ability to continuously monitor flare stacks, and therefore, reduce the required inspections.
- In an emergency situation, the flare gas must be flared immediately. Auto-igniting flares may not always provide immediate combustion due to multiple risk factors such as water ingress and wind conditions. The regulation should allow for manually ignited flares under certain circumstances.
- Upgrading all flares that do not meet the flaring standard within 12 months of the regulation coming into force is both technically and logistically challenging. This requirement should make allowance for the procurement process and operational scheduling against safety-critical tasks