



Oil & Gas  
Authority

# Flaring and venting during the production phase

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Under the Energy Act 1976 and the Petroleum Act 1998, operators are required to have Consents in place for the flaring and venting of hydrocarbons during production operations. The OGA is committed to eliminating any unnecessary or wasteful flaring and venting of gas.

Here you will find a summary of the process involved in gaining consent for the flaring and venting of gas during the production phase of a field development.

## Flare and vent consents during the production phase

Following commissioning, flare and vent consents are normally issued on an annual basis. Shorter duration consents (Short Term consents) are issued at the OGAs discretion; this may occur for example, if the OGA has concerns over the level of gas flaring at an installation.

Note that the Energy Act 1976 and Petroleum Act 1998 have slightly different definitions of the gases emitted.

For vent consents under the [Energy Act 1976](#), both the inert gas and hydrocarbon fraction obtained from the licensed area should be given, and the combined rate for both will be the basis for the consent.

For flaring under the [Petroleum Act 1998](#), only the hydrocarbon fraction flared from the licensed area requires consent but the OGA will require the inert gas content of the flare to be provided for information.

### Objectives for flare and vent consent application

The objective of the flare and vent consent applications is to prepare a realistic forecast based on these guidelines and the categorisation as indicated below. For annual consents (which are usually applied for in October each year via the Energy Portal) the performance for the current year from January to September and past performance should provide a starting point for this forecast.

The OGA is committed to eliminating all unnecessary or wasteful flaring and venting of gas. Operators should seek to minimise this by implementing best practice at an early stage in the design of the development and by continuing to improve on this during the subsequent operational phase. The operator should consider carefully all operational activities in accordance with good oil field practices, taking into consideration plant uptime, efficient processing, handling, uses and transportation of gas.

The application must be submitted in mass units.

## Installation and field diversity

In practice every individual production operation has some unique aspects. The categories below attempt to cover the widest range of scenarios from oil fields with gas lift and gas exports, to dry gas fields. For gas condensate fields, if gas export is not possible then the liquids production is normally shut down – thus little gas is flared.

There are some fields with multiple installations that have been issued with a single flare consent. In many cases, several fields are processed across a single installation and in some of these cases the OGA has issued a 'group consent' covering the installation rather than the individual fields. This does not imply allocation back to a field is inapplicable, but was intended to represent a pragmatic and simpler operational approach. Such a consent is considered when all the fields and the installation have the same equity partners. Where the fields have different equity partners, the OGA will issue separate consents unless prior agreement in writing is granted by all the partners in all the fields and the installation. Supporting documentation should be included in the application.

## Flare and vent source categories

These have been rationalised into 4 categories:

### Category 1 - base load flare

This includes all the gas used for safe and efficient operation of the process facility and flare system under normal operating conditions. This shall also include any gas that has to be discarded as part of the installation processes and is discharged to flare. Typical examples are all process purges and pilots, the off-gas from the glycol regeneration plants and acid gas discharged from MDEA and other gas treatment plants, where these are fed to the flare system for combustion.

This category also includes flaring from installations with no gas export facilities.

### Category 2 – flaring from operational or mode changes

This includes gas flaring resulting from the start up and planned shut down of equipment during production, and will also include gas not meeting export specification, maintenance of equipment and equipment outages. This category also includes flaring that is caused by the temporary lack of access to a third-party gas export pipeline or similar.

### Category 3 – emergency shut down / process trip

This includes any gas flared during an emergency shut down / process trip of equipment or the installation, including shut-in of the wells.

### Category 4 – Unignited vents

This covers inert gases and hydrocarbons gases that may be discharged to an atmospheric vent. The Energy Act requires both the inert and hydrocarbon gases obtained from the licensed area that are vented to be covered by the consent.

This should also include venting of gases from onboard crude oil storage tanks eg for FPSOs during crude oil filling operations. However, this excludes inert gases that are generated onboard the installation for the purpose of providing an inert blanket for onboard oil storage tanks etc.

Vents may contain nitrogen, carbon dioxide, water vapour, hydrocarbons and possibly traces of sulphur compounds, etc. Operators should give an estimated annual average composition of vented stream(s) in the notes section of the vent application.

## Approach to flare application

Unless the flare is associated with a field or facility whose production efficiency is below expectations or there are other indications that an improvement could be made the OGA will not examine in detail applications for requested flare levels that do not exceed 40 tonnes a day\*, provided there is no request for an increase to the levels in the extant flare consent.

\* 40 tonnes a day refers to the total flare levels from a facility, irrespective of whether a composite/group consent is issued.

The following points should be noted:

- Consents will be issued on a field basis, or where several fields tie-in into common facilities, the operator may apply for a single, composite consent. If the fields and facilities have different equity partners, the OGA will issue separate consents unless prior agreement in writing is granted by all the partners in all the fields and the installation. Supporting documentation should be included in the application.
- If a tie back of a new field to an existing facility occurs, the extant flare consent must be varied (via a UK Energy Portal application) to include the new field, or a separate flare consent for the new field should be applied for.
- One field flare consent will continue to cover a field where flaring takes place on a number of installations
- A flare consent will not be issued with an expiry date falling after the expiry date of the production consent, the licence, or the expected cessation of production date (whichever is earliest), of any of the fields covered by the consent.
- No carrying forward of flare allowance from one year to the next will be permitted.
- If it appears that the flare consent will be breached, the OGA (following submittal of a variation to the extant flare consent) will consider issuing a revised consent. It is the operator's responsibility to present a technical case to the OGA in a timely manner (i.e. as soon as it becomes apparent that a breach is likely) in the event that a revision is required.
- For any application leading to a facility 'total' consent (i.e. the sum of the consents of all fields' producing to the facility) of less than 40 tonnes a day it is sufficient to complete only the minimum of information. However, operators must still exercise appropriate technical and operational diligence in estimating quantities.
- Any application leading to a facility 'total' consent (i.e. the sum of the consents of all fields' producing to the facility) of greater than 40 tonnes a day will be subjected to detailed review by the OGA. These applications will require the Operator to provide full supporting details and to exercise a high level of technical and operational diligence in estimating quantities. This level of flare is considered to represent a potential opportunity for flare reduction and therefore Operators must submit details of medium- and long-term plans for flare reduction.
- New fields are subject to normal short-term commissioning flare consents until stable production is achieved, when a decision will be made as to what consent duration will be issued (depending upon flare level sought)
- There are a number of methods to quantify gas volume flared and likewise, a number of methods to convert this to a mass basis. Flare quantification is in accordance with the requirements for flaring associated with the EU-ETS Phase III. Operators should ensure the methodology they have in place meets or exceeds the necessary levels of accuracy.
- All units are water dry metric tonnes.
- All fields will continue to report quantities via the PPRS.

## Approach to vent application

Unless the vent is associated with a field or facility whose production efficiency is below expectations or there are other indications that an improvement could be made the OGA will not examine in detail applications for requested vent levels that do not exceed 4 tonnes a day\*, provided there is no request for an increase to the levels in the extant vent consent.

\* 4 tonnes a day refers to the total vent levels from a facility, irrespective of whether a composite/group consent is issued.

The following points should be noted:

- Consents will be issued on a field basis, or where several fields tie-in into common facilities, the operator may apply for a single, composite consent. If the fields and facilities have different equity partners, the OGA will issue separate consents unless prior agreement in writing is granted by all the partners in all the fields and the installation. Supporting documentation should be included in the application.
- If a tie back of a new field to an existing facility occurs, the extant vent consent must be varied (via a UK Energy Portal application) to include the new field, or a separate vent consent for the new field should be applied for.
- One field vent consent will continue to cover a field where flaring takes place on a number of installations
- A vent consent will not be issued with an expiry date falling after the expiry date of the production consent, the licence, or the expected cessation of production date (whichever is earliest), of any of the fields covered by the consent.
- No carrying forward of vent allowance from one year to the next will be permitted.
- If it appears that the vent consent will be breached, the OGA (following submittal of a variation to the extant vent consent) will consider issuing a revised consent. It is the operator's responsibility to present a technical case to the OGA in a timely manner (i.e. as soon as it becomes apparent that a breach is likely) in the event that a revision is required.
- For any application leading to a facility 'total' consent (i.e. the sum of the consents of all fields' producing to the facility) of less than 4 tonnes a day it is sufficient to complete only the minimum of information. However, operators must still exercise appropriate technical and operational diligence in estimating quantities.
- Any application leading to a facility 'total' consent (i.e. the sum of the consents of all fields' producing to the facility) of greater than 4 tonnes a day will be subjected to detailed review by the OGA. These applications will require the Operator to provide full supporting details and to exercise a high level of technical and operational diligence in estimating quantities. This level of vent is considered to represent a potential opportunity for vent reduction and therefore Operators must submit details of medium- and long-term plans for vent reduction.
- New fields are subject to normal short-term commissioning vent consents until stable production is achieved, when a decision will be made as to what consent duration will be issued (depending upon vent level sought)