

## Global Gas Flaring Reduction Partnership Gas Flaring Definitions

The objective of this document is to group the various types of gas flaring at oil production facilities in three defined categories: routine flaring, safety flaring, and non-routine flaring. Categorizing each type of gas flaring in this way allows identification of potential actions for its mitigation in new or existing facilities. This mitigation may be through:

- Commercial solutions, on-site utilization, or re-injection for routine flaring; or
- Improved facility design and/or operational procedures for routine, non-routine, and safety flaring.

The below examples of routine, safety, and non-routine flaring are illustrative and therefore not an exhaustive list.

### Routine flaring

Definition	Examples of Routine Flaring
<p>Routine flaring of gas at oil production facilities is flaring during normal oil production operations in the absence of sufficient facilities or amenable geology to re-inject the produced gas, utilize it on-site, or dispatch it to a market.</p> <p>Routine flaring does not include safety flaring, even when continuous.</p>	<p>Includes:</p> <ul style="list-style-type: none"> <li>• Flaring from oil/gas separators;</li> <li>• Flaring of gas production that exceeds existing gas infrastructure capacity;</li> <li>• Flaring from process units such as oil storage tanks, tail gas treatment units, glycol dehydration facilities, produced water treatment facilities, except where required for safety reasons.</li> </ul>

### Safety flaring

Definition	Examples of Safety Flaring
<p>Safety flaring of gas is flaring to ensure safe operation of the facility.</p>	<p>Includes flaring of:</p> <ul style="list-style-type: none"> <li>• Gas stemming from an accident or incident that jeopardizes the safe operation of the facility;</li> <li>• Blow-down gas following emergency shutdown to prevent over-pressurization of all or part of the process system;</li> <li>• Gas required to maintain the flare system in a safe and ready condition (purge gas/make-up gas/fuel gas);</li> <li>• Gas required for a flare's pilot flame;</li> </ul>

Definition	Examples of Safety Flaring
	<ul style="list-style-type: none"> <li>• Gas produced as a result of specific safety-related operations, such as safety testing, leak testing, or emergency shutdown testing;</li> <li>• Gas containing H<sub>2</sub>S, including the volume of gas added to ensure good dispersion and combustion;</li> <li>• Gas containing high levels of volatile organic compounds other than methane.</li> </ul>

### Non-routine flaring

Definition	Examples of Non-Routine Flaring
<p>Non-routine flaring of gas is all flaring other than routine and safety flaring.</p>	<p>Non-routine flaring is typically intermittent and of short duration. It is either planned or unplanned.</p> <p>Includes flaring during:</p> <ul style="list-style-type: none"> <li>• Temporary (partial) failure of equipment that handles the gas during normal operations, until their repair or replacement, e.g. failure of compressors, pipeline, instrumentation, controls;</li> <li>• Temporary failure of a customer's facilities that prevents receipt of the gas;</li> <li>• Initial plant/field startup before the process reaches steady operating conditions and/or before gas compressors are commissioned;</li> <li>• Startup following facility shutdowns;</li> <li>• Scheduled preventive maintenance and inspections;</li> <li>• Construction activities, such as tie-ins, change of operating conditions, plant design modifications;</li> <li>• Process upsets when process parameters fall outside the allowable operating or design limits and flaring is required to stabilize the process again;</li> <li>• Reservoir or well maintenance activities such as acidification, wire line interventions;</li> <li>• Exploration-, appraisal-, or production-well testing or clean-up following drilling or well work-over.</li> </ul>