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
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. Routine flaring does not include safety flaring, even when continuous.	Includes: • Flaring from oil/gas separators; • Flaring of gas production that exceeds existing gas infrastructure capacity; • 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.

Safety flaring

Definition	Examples of Safety Flaring
Safety flaring of gas is flaring to ensure safe operation of the facility.	Includes flaring of: • Gas stemming from an accident or incident that jeopardizes the safe operation of the facility; • Blow-down gas following emergency shutdown to prevent over-pressurization of all or part of the process system; • Gas required to maintain the flare system in a safe and ready condition (purge gas/make-up gas/fuel gas); • Gas required for a flare's pilot flame;

Definition	Examples of Safety Flaring
	• Gas produced as a result of specific safety-related operations, such as safety testing, leak testing, or emergency shutdown testing; • Gas containing H_2S, including the volume of gas added to ensure good dispersion and combustion; • Gas containing high levels of volatile organic compounds other than methane.

Non-routine flaring

Definition	Examples of Non-Routine Flaring
Non-routine flaring of gas is all flaring other than routine and safety flaring.	Non-routine flaring is typically intermittent and of short duration. It is either planned or unplanned. Includes flaring during: • 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; • Temporary failure of a customer's facilities that prevents receipt of the gas; • Initial plant/field startup before the process reaches steady operating conditions and/or before gas compressors are commissioned; • Startup following facility shutdowns; • Scheduled preventive maintenance and inspections; • Construction activities, such as tie-ins, change of operating conditions, plant design modifications; • Process upsets when process parameters fall outside the allowable operating or design limits and flaring is required to stabilize the process again; • Reservoir or well maintenance activities such as acidification, wire line interventions; • Exploration-, appraisal-, or production-well testing or clean-up following drilling or well work-over.