

Flare Efficiency Monitoring

Emissions from flaring systems and combustion devices can be a major source of methane. Both in OGMP 2.0 L4/L5 as well as in the new EU Methane Regulation, the performance of flaring systems must be measured and reported, requiring a 98% Destruction Removal Efficiency (DRE).

Our Flare Efficiency Monitoring program can help you comply with these requirements. By using a multispectral Optical Gas Imaging camera, our experts measure flare efficiency and methane emissions as bottom-up method in line with OGMP Technical Guidance Documents.

The multispectral OGI camera can be applied to all flares including maintenance flares, emergency flares as well as mobile flaring installation both permanently and periodically.

Monitoring procedure

The camera provides real-time data on the flare efficiency to characterize each flare mode. The flares can be measured in different modes.

After the measurements on site, the data is exported to Excel and processed to obtain the average DRE (%). Based on this information and your data of the flow to the flare, VOC mass emissions are calculated.

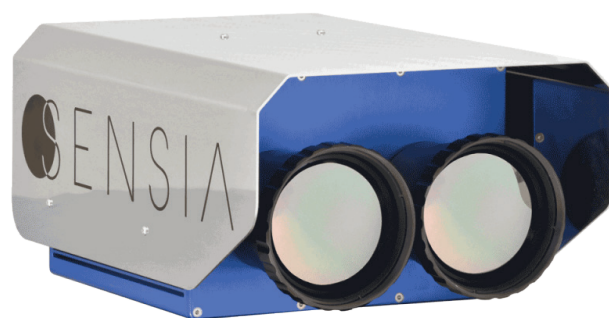
Possible drawbacks

Each measurement device has its benefits and limitations. We would not recommend using the multispectral OGI camera on a rainy day or pointing it directly to the sun. The wind also affects flare efficiency. When wind conditions differ, this might change the flare DRE.



Key Features

- Applicable to all flares
- Real-time data on the flare efficiency
- Measurement in different modes



Preparation

1

- Identify flares on P&ID
- Provide unique number
- Identify fuel type

On site

2

- Select optimal location
- Set up camera
- Configure parameters
- Perform measurements

Calculations

3

- DRE parameters (e.g. max, min, average)
- Emission rates (in mass and volume)

Reporting

4

- Complete flare report with list of measured sources and flare efficiency
- In compliance with OGMP 2.0

Project Deliverables

- Complete flare report in compliance with OGMP 2.0,
- Detailed list of all measured sources with date, PPM values for CO₂ and VOCs, calculated loss kg/year for CH₄,
- Calculation of flare efficiency,
- Tables and figures,
- Discussion of project results during a handover meeting.

