



EUROPEAN  
COMMISSION

Brussels, 15.12.2021  
COM(2021) 805 final

ANNEXES 1 to 8

## **ANNEXES**

**to the**

**Proposal for a Regulation of the European Parliament and of the Council  
on methane emissions reduction in the energy sector and amending Regulation (EU)  
2019/942**

{SEC(2021) 432 final} - {SWD(2021) 459 final} - {SWD(2021) 460 final}

## **ANNEX I**

### **Leak detection repair and monitoring schedules**

#### Repair schedule

The repair schedule referred to in Article 14 must include at least the following elements:

- (i) Inventory and identification of all components that have been checked
- (ii) Result of inspection in terms of whether methane loss has been detected and, if so, size of loss
- (iii) For components found to be emitting 500 parts per million or more of methane, indication of whether repair was undertaken during the LDAR survey and if not why, taking into account the requirements as regards what elements can be taken into account for a delayed repair, as per Article 14, paragraph 4.
- (iv) For components found to be emitting 500 parts per million or more of methane, planned repair schedule indicating planned date of repair,
- (v) For components found to be emitting less than 500 parts per million in previous LDAR survey, but found to be emitting 500 parts per million or more of methane during post LDAR monitoring to check whether the size of loss of methane has evolved, indication whether repair was undertaken immediately and if not, why not (as per iii), and planned repair schedule indicating planned date of repair.

This is to be followed by a post repair schedule to indicate when repairs were effectively carried out.

#### Monitoring schedule

The monitoring schedule referred to in Article 14 must include at least the following elements:

- (i) Inventory and identification of all components that have been checked
- (ii) Result of inspection in terms of whether methane loss has been detected and, if so, size of loss
- (iii) For components found to be emitting 500 parts per million or more of methane, results of monitoring after repair to check if repair was successful
- (iv) For components found to be emitting less than 500 parts per million of methane, results of post LDAR monitoring to check whether the size of loss of methane has evolved and recommendation on the basis of finding.

## **ANNEX II**

### **Reporting of venting and flaring events**

Pursuant to Article 16, operators must report to the competent authorities at least the following information regarding methane flared or vented:

- (i) name of the operator;
- (ii) name and type of asset;
- (iii) equipment involved;
- (iv) date(s) and time(s) that venting or flaring was discovered or commenced and terminated;
- (v) measured or estimated volume of vented or flared natural gas;
- (vi) cause and nature of venting or flaring;
- (vii) steps taken to limit the duration and magnitude of venting or flaring;
- (viii) corrective actions taken to eliminate the cause and recurrence of venting or flaring;
- (ix) results of weekly inspections of flare stacks carried out in accordance with Article 17

### **ANNEX III**

#### **Flare stack inspections**

Weekly flare stack inspections must include a comprehensive Audio, Visual and Olfactory (AVO) inspection (including external visual inspection of flare stacks, listening for pressure and liquid leaks and smelling for unusual and strong odours).

During the inspection the operator must inspect all components, including flare stacks, thief hatches, closed vent systems, pumps, compressors, pressure relief devices, valves, lines, flanges, connectors, and associated piping to identify defects, leaks and releases.

The following observations must be included in the report:

- (i) In the case of lit flares: whether combustion is considered adequate or inadequate. Inadequate combustion being defined as a flare with visible emissions that exceed a total of five minutes during any two consecutive hours.
- (ii) In the case of unlit flares: whether the unlit flare has a gas vent or not. If it does have a gas vent, an intervention to remedy it should take place within 6 hours or within 24 hours in the case of bad weather or other extreme conditions.

## **ANNEX IV**

### **Inventories of inactive wells**

Pursuant to Article 18, inventories of inactive wells must include at least the following information:

- (i) name and address of the operator, owner or licensee, where applicable;
- (ii) name, type and address of well or well site;
- (iii) map showing borders of the well or well site;
- (iv) results of any methane concentration measurements.

**ANNEX V**  
**Reporting for operating coal mines**

Part 1

Pursuant to Articles 19 and 20, the reports for operating underground mines must include at least the following information:

- (i) name and address of the mine operator;
- (ii) mine address;
- (iii) tonnage of each coal type produced by the mine;
- (iv) for all ventilation shafts utilised by the mine
  - 1) name (if any);
  - 2) period of use, if different from the reporting period;
  - 3) coordinates;
  - 4) purpose (intake, exhaust);
  - 5) technical specification of the measurement apparatus used for measurement and quantification of methane emissions and optimum operating conditions specified by the producer;
  - 6) proportion of time when continuous measurement apparatus was operating;
  - 7) choice of European or international standard for:
    - methane measurement apparatus sampling position;
    - measurement of flow rates;
    - measurement of methane concentrations;
  - 8) methane emissions registered by the continuous measurement apparatus (in tonnes);
  - 9) methane emissions registered through monthly sampling (in tonnes/hour) covering information on;
    - sampling date;
    - sampling technique;
    - readings of atmospheric conditions (pressure, temperature, humidity), taken at an appropriate distance to reflect conditions at which continuous measurement apparatus is operating;
  - 11) if mine is joined to another mine by any means allowing for a flux of air between the mines, name of the mine;
- (v) post mining emission factors and description of method employed for their calculation;
- (vi) post-mining emissions (in tonnes).

## Part 2

Pursuant to Articles 19 and 20, the reports for operating surface mines must include at least the following information:

- (i) name and address of the mine operator;
- (ii) mine address;
- (iii) tonnage of each coal type produced by the mine;
- (iv) map of all deposits utilised by the mine, outlining borders of these deposits;
- (v) for each coal deposit:
  - 1) name (if any)
  - 2) period of use, if different from the reporting period
  - 3) outline of the experimental method employed to determine methane emissions due to mining activities, including the choice of methodology to account for methane emissions from surrounding strata
- (vi) post mining emission factors and description of method employed for their calculation;
- (vii) post-mining emissions.

## Part 3

Pursuant to Articles 19 and 20, the reports for drainage stations must include at least the following information:

- (i) name and address of the mine operator;
- (ii) tonnage of methane supplied by a mine/mines drainage system, per mine;
- (iii) tonnage of methane vented;
- (iv) tonnage of flared methane;
- (v) flare efficiency;
- (vi) use of methane captured.

## **ANNEX VI**

### **Reporting of venting and flaring events in drainage stations**

Pursuant to Article 23, drainage station operators must report to the competent authorities at least the following information regarding methane flared or vented:

- (i) name and address of the operator;
- (ii) time when the event was first detected;
- (iii) cause of the venting and/or flaring event;
- (iv) tonnage of methane vented and flared (or an estimate if quantification is not possible).

**ANNEX VII**  
**Closed and abandoned mines**

Part 1

Pursuant to Article 24 and 25, for each site, the inventory of closed and abandoned coal mines must include at least the following information:

- (i) name and address of the operator, owner or licensee, where applicable;
- (ii) site address;
- (iii) map showing borders of the mine;
- (iv) schemes of mine workings and their status
- (v) results of methane concentration measurement at the following elements:
  - 1) all ventilation shafts utilised by the mine when operating, accompanied by:
    - shaft coordinates
    - shaft name (if any)
    - sealing status and sealing method, if known
  - 2) unused vent pipes
  - 3) unused gas drainage wells
  - 4) outcrops;
  - 5) identifiable strata fractures at the mine's territory or linked to its former coal deposit;
  - 6) other recorded potential point emission sources.

Part 2

The measurements referred to in point (v) of Part 1 must be performed in accordance with the following principles:

- (i) measurements must be performed at atmospheric pressure allowing for potential methane leak to be detected, and according to the appropriate scientific standards.
- (ii) measurements must be performed using an apparatus with a sensitivity threshold of at least 10.000 ppm, at the closest available distance to the measured emission source.
- (iii) measurements must be accompanied by an information on:
  - 1) date of the measurement
  - 2) atmospheric pressure
  - 3) technical details of the equipment used for the measurement
- (iv) ventilation shafts historically utilised by two or more mines must be assigned to just one mine, to avoid double-counting

Part 3

The report set out in Article 25(3) must include the following elements:

- (i) name and address of the operator, owner or licensee, where applicable;
- (ii) site address;
- (iii) methane emissions from all elements outlined in Article 25(3) including:
  - 1) type of element
  - 2) technical details of measurement apparatus used for the measurement including sensitivity
  - 3) proportion of time when measurement apparatus was operating
  - 4) methane concentration registered by the measurement apparatus
  - 5) estimates of methane emissions from the element

#### Part 4

The mitigation plan set out in Article 26(1) must include at least the following information:

- (i) list of all elements covered in Article 25(3);
- (ii) technical feasibility of mitigation of methane emissions from elements outlined in Article 25(3);
- (iii) timeline of mitigation of methane emissions from elements outlined in Article 25(3).

## **ANNEX VIII**

### **Information to be provided by importers**

For the purposes of this Annex, ‘exporter’ means the contractual counterparty in each supply contract entered into by the importer for the delivery of fossil energy into the Union.

Pursuant to Article 27, importers must provide the following information:

- (i) name and address of exporter and, if different from exporter, name and address of producer;
- (ii) country and regions corresponding to the Union nomenclature of territorial units for statistics (NUTS) level 1 where the energy was produced and countries and corresponding to the Union nomenclature of territorial units for statistics (NUTS) level 1 through which the energy was transported until it was placed on the Union market;
- (iii) as regards oil and fossil gas, whether the exporter is undertaking measurement and reporting of its methane emissions, either independently or as part of commitments to report national GHG inventories in line with United Nations Framework Convention on Climate Change (UNFCCC) requirements, and whether it is in compliance with UNFCCC reporting requirements or in compliance with Oil and Gas Methane Partnership 2.0 standards. This must be accompanied by a copy of the latest report on methane emissions, including, where available, the information referred to in Article 12(6). The method of quantification (such as UNFCCC tiers or OGMP levels) employed in the reporting must be specified for each type of emissions;
- (iv) as regards oil and gas, whether the exporter applies regulatory or voluntary measures to control its methane emissions, including measures such as leak detection and repair surveys or measures to control and restrict venting and flaring of methane. This must be accompanied by a description of such measures, including, where available, reports from leak detection and repair surveys and from venting and flaring events with respect to the last available calendar year;
- (v) as regards coal, whether the exporter is undertaking measurement and reporting of its methane emissions, either independently or as part of commitments to report national GHG inventories in line with United Nations Framework Convention on Climate Change (UNFCCC) requirements, and whether it is in compliance with UNFCCC reporting requirements or in compliance with an international or European standard for monitoring, reporting and verification of methane emissions. This must be accompanied by a copy of the latest report on methane emissions, including, where available the information referred to in Article 20(6). The method of quantification (such as UNFCCC tiers or OGMP levels) employed in the reporting must be specified for each type of emissions;
- (vi) as regards coal, whether the exporter applies regulatory or voluntary measures to control its methane emissions, including measures to control and restrict venting and flaring of methane. This must be accompanied by a description of such measures, including, where available, reports from venting and flaring events with respect to the last available calendar year;
- (vii) name of the entity that performed independent verification of the reports referred to in points (iii) and (v), if any.