Methane Management in Extractive Industries

Objectives

The objective of this survey is to provide an initial overview of how methane emissions in extractive industries are monitored, measured, recorded, and reported across the extraction, processing and transport segments of the respective value chains.

The survey is being conducted anonymously and its results will be aggregated into a summary report to inform the development of Best Practice Guidance in Managing Methane Emissions. Respondents who advise of their contact details will be invited to engage with UNECE on any follow-up work to develop the guidance.

Survey Questions

1. You are active in which industry? (More than one answer is possible)
    a. Upstream Oil and/or Gas[1]
    b. Downstream Oil
    c. Downstream Gas
    d. Midstream Oil
    e. Midstream Gas
    f. Coal

2. Do you monitor methane or other gaseous hydrocarbon emissions in your operations?
    a. Yes
    b. No
    c. No, but we calculate emissions (please elaborate) _____
    _____

3. Do you report the results of your monitoring operations?
    a. Yes
    b. No

4. Is the monitoring and/or the reporting mandated by law or regulation?
    a. Yes (please specify which law or regulation below)
    b. No
    c. In some operational regions, but not all

Comments:

[1] Upstream refers to exploration and production and includes searching for potential underground or underwater crude oil and natural gas fields, drilling exploratory wells, and subsequently drilling and operating the wells that recover and bring the crude oil and/or raw natural gas to the surface.

_____
_____
_____
_____
_____

5. What is the primary purpose of the monitoring and reporting program? (More than one answer is possible, but please indicate which is the primary purpose)
    a. Financial - Avoiding commercial losses
    b. Safety
    c. Environmental
    d. Mandated by law
    e. Other (please specify)
        i. _____
        ii. _____
6. How do you define methane or other gaseous hydrocarbon emissions? (More than one answer is possible)
    a. Fugitive Leaks - Unintentional leaks from pipelines, valve seals, et al.
    b. Natural accumulations of methane in the resource[2]
    c. Controlled releases - Intentional venting, blow downs, at al.
    d. Third party plant damage releases
    e. Other (_____)

7. Do you distinguish between methane and other gaseous hydrocarbons in your monitoring and reporting?
    a. Yes
    b. No

8. If yes, what other gaseous hydrocarbons do you include in your monitoring programme? (More than one answer is possible)
    a. Ethane
    b. Propane
    c. Butane
    d. Other? _____
9. Which components of your facilities do you monitor?
    a. _____
    b. _____
    c. _____
    d. _____
    e. _____

[2] This terminology is generally a reference to methane found in reserves where it is not the primary product being extracted. Examples of this include methane found in coal or oil reserves.

10. Why those particular components?

_____
_____
_____
_____
_____
_____

11. Which processes do you monitor? Add additional lines if required.
    a. _____
    b. _____
    c. _____
    d. _____
    e. _____

12. Why those particular processes?

_____
_____
_____
_____
_____

13. What is the frequency of your monitoring program and does it vary based on component, age, potential risk level, etc.? (More than one is acceptable but provide below the explanation behind the difference)
    a. Continuous
    b. Daily
    c. Weekly
    d. Monthly
    e. Quarterly
    f. Annually
    g. Our systems do not emit methane

Comments

_____
_____
_____
_____

14. How do you standardize methane emissions in your organization?

_____
_____
_____

_____
_____

15. Is the methane emissions standardization mandated by law or regulation?
    a. Yes (please specify based on which law or regulation in comments)
    b. No

Comments:

_____
_____
_____
_____
_____
_____

16. What methods/technology(ies) do you use to monitor methane emissions? (Please explain if necessary)
    a. Measurement of all equipment and assets
    b. Calculate emissions [based on throughputs or some other accepted approach]
    c. Combined approach of monitoring and calculations

Comments/Additional information:

_____
_____
_____
_____

17. Are the methods/technologies mandated by law/regulations?
    a. Yes (please specify which law or regulation below)
    b. No

Comments:

_____
_____
_____
_____
_____

18. Why were those methods/technologies chosen?

_____
_____

_____
_____

19. What % of methane emissions are included in a Maximum Allowable Emission Target?
    _____
    _____
    _____
    _____

20. When using emissions factors for calculations, what database(s) do you use?
    a. EPA
    b. UN
    c. Company data
    d. Other (please specify)

21. How often is the monitoring equipment calibrated
    a. Weekly
    b. Monthly
    c. Quarterly
    d. Other

22. How are the monitoring results recorded?
    Level of detail/disaggregation (More than one answer is possible)
    a. geographical region
    b. facility
    c. component
    d. time period
    e. emission type

23. How are the monitoring results recorded?
    What units are used to record the results?

_____
_____
_____

24. How are surveys conducted?
    a. Primarily by employees
    b. Primarily by employees with third party auditing
    c. Primarily by third party providers
    d. Primarily by third party providers with company auditing

25. How are the results aggregated?
    a. Company-wide emissions
    b. Equipment type

c. Not aggregated
d. Other
    i. _____

26. How are your results reported? (More than one answer is possible)
    a. only internally
    b. only for regulatory purposes
    c. national Inventory
    d. publicly available (if so, please provide links)
    e. CCAC-OGMP
    f. OGCI
    g. Other (_____)

27. What organisations do you cooperate with on this topic?
    a. _____
    b. _____
    c. _____
    d. _____
    e. _____