

MiQ STANDARD

for Methane Emissions Performance

Introduction for Auditors

v2.0



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Introduction

About MiQ

MiQ is a global, independent, non-profit with a mission to facilitate a rapid reduction in methane emissions from the oil and gas industry through increased transparency of emissions, enabling buyers and sellers to differentiate natural gas according to its emissions intensity. Methane emissions from the oil and gas sector have a detrimental impact on climate change as a short-lived climate pollutant.

MiQ has established a universally applicable certification standard for assessing methane emissions performance, which provides a framework for the grading of an Operator's methane emissions performance across three criteria, or pillars:

- **methane emissions intensity;**
- **monitoring technology deployment; and**
- **company practices, covering company culture and mitigation practices.**

Oil & gas Facility operations, spanning production, gathering & boosting, processing, transmission & storage, liquefaction, shipping and regasification, are assessed by third-party independent auditors against the respective MiQ Standard for Methane Emissions Performance, resulting in a facility-level certification grade from A to F, each attesting to a methane intensity for that facility's operations. Unlike other frameworks that assess emissions at the national or company level, MiQ Certification is based on an independent Standard that is assessed at the Facility-Level. This more granular assessment by a third party provides transparent metrics for practically comparing gas supplies based on their methane emissions performance.

Certified Operators can generate transactable MiQ Certificates against their throughput, which represents an environmental attribute associated with their methane emissions performance of the **certified gas**.

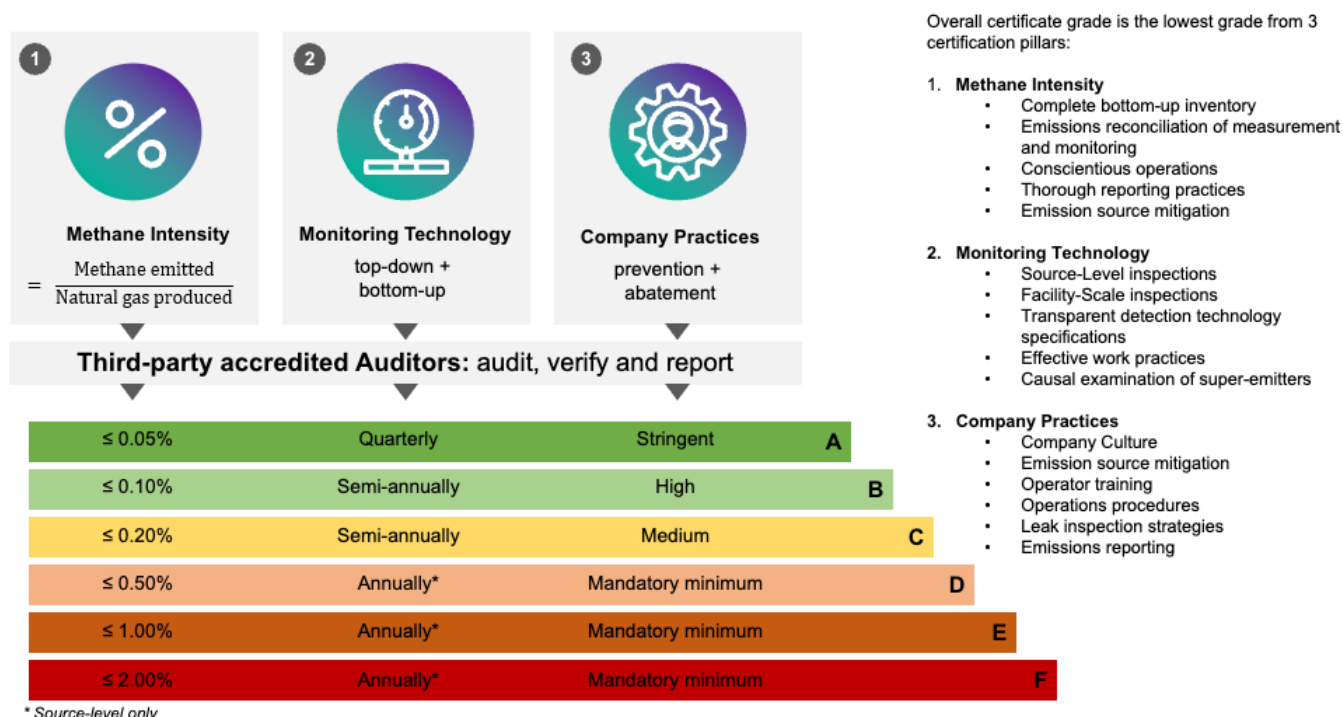


Figure 1: Simplified grading structure for the MiQ Onshore Production Standard v1.0

MiQ Certificates are issued to producers'/operators' accounts on the [MiQ Digital Registry](#). Once issued, these parties can transfer MiQ Certificates to buyers to evidence the emissions intensity of its gas production and, where applicable, the combined Certified Supply Chain certificates. Certificates are retired upon consumption of the natural gas as evidence of emissions generated for production through to the city gate.

MiQ Standards

MiQ has published Standards on the MiQ [website](#) for Methane performance for each segment of the natural gas supply chain, including:

- Onshore Production
- Offshore Production
- Gathering & Boosting
- Natural Gas and Liquids Processing
- Transmission & Storage
- Liquefaction
- Liquefied Natural Gas (LNG) Shipping
- LNG Regasification

The MiQ Digital Registry

The MiQ Registry is the ledger where all MiQ Certificates are held throughout their lifecycle, from issuance to retirement, ensuring the authenticity of the gas and to avoid double-counting. An MiQ Certificate represents the methane emissions performance attributes of 1 MMBtu of natural gas. Each certificate, which has a unique identifier, evidences where and when the gas was produced, or handled, and the methane intensity of the operation.

The MiQ Registry conducts and maintains validation know-your-customer (KYC) checks on participants in the MiQ program, including Auditors. Auditing firms **must** undergo a KYC check by the MiQ Digital Registry before being granted MiQ accreditation.

Audits

The **annual audit** is conducted by an MiQ Accredited auditor prior to the issuance of any MiQ certificates and is valid for 12 months of certificate issuance. Auditors are accredited to specific segments of the supply chain listed above, based on their qualifications, credentials, and relevant experience.

A list of accredited auditors is available on the [MiQ website](#).

Audit Process

An auditor will conduct a desktop review, interviews, and an onsite field verification and interviews with key staff to observe and evaluate a company's adherence to the Standards' performance criteria. Using a combination of the methods below, the Auditor will complete an annual audit report and recommend a grade based for the Facility's overall performance.

As part of the annual audit the auditor will complete the following:

- Verify historical and forecasted data regarding a Facility's methane emissions inventory, including bottom-up and top-down data, for accuracy and completeness to meet the criteria of the **Methane Intensity subsidiary document**.
- Verify documentation that demonstrates the Facility's compliance with the **Company Practices subsidiary document**. This documentation may include design standards, operating procedures, equipment inventories, operations training records, maintenance records, and LDAR records,

- Verify documentation related to the Facility's LDAR program and deployment of advanced monitoring technology utilized in reference to the scoring levels of the **Monitoring Technology Deployment subsidiary document**.
- **Interview relevant personnel** including operations and environmental management, engineering and environmental staff, lease/site operations, and relevant contractors to confirm documentation, verify data sources, and confirm understanding of operating procedures.
- Conduct **onsite field inspections** of a representative sample of the Facility's operations to evaluate the implementation and effectiveness of company practices, deployment of monitoring technology, and confirm significant inputs of the emissions inventory.

Conflict of Interest

Auditors must maintain independence and avoid conflict of interest, especially where there is financial conflict or the auditor is at risk of verifying all or parts of the auditor's own work. Auditors are not permitted to assess their own data or work product, including, but not limited to, primary data collected or processed on behalf of the operator (such as emissions measurement or monitoring data), or prior consulting or emissions management support.

Auditing firms may have historical involvement or provide other services to a given operating company outside of the MiQ certification scope. In such cases, auditing firms must (1) recuse any staff or Principal auditor(s) that have taken part in work scopes that have aided emissions management or accounting for the operator, (2) demonstrate the application of an "Ethical Wall" to manage avoidance of any information sharing between previous or external work scopes and that of MiQ, (3) provide a corporate conflict of interest policy/statement outlining their principles and procedures for avoiding conflict in client management, as part of their initial application.

Subject matter experts, in addition to numerous external stakeholders, have been consulted or provided feedback in the development of the MiQ Standards as well as the Auditing process. Note that this level of participation does not preclude firms or individuals from conducting audits against MiQ Standards.

Costs and fees

The operator pursuing certification of their facility will be responsible for any costs relating to the provision of information and data for the audits and for the cost of the audit itself.

Accreditation Process

MiQ's accreditation and approval activities will keep pace with market needs to support MiQ certification in necessary geographies and supply chain segments. Regular management reviews of market analyses and market demands, including those derived from interested parties, will dictate the speed of accreditation for a given auditing group.

The following is a brief overview of the accreditation process:

Phase	Description
Initial Inquiry	Auditor reviews the MiQ Standard. Auditor expresses interest to become an Accredited Auditor for the MiQ Standards, with supporting information on segment and geographical coverage as well as market justification.
Screening	MiQ conducts an initial interview to assess subject matter expertise and experience

	necessary for eligibility as well as any staffing gaps that might be filled prior to application.
Registry sign up and KYC	Following the initial screening process, the auditor will be prompted to sign up to the MiQ Digital Registry and submits information to verify the identity, suitability, and financial risks for incorporation of the registrant (KYC) (http://miqregistry.org/)
Auditor application	The Auditor provides an accreditation package to MiQ as per the requirements under the Accreditation Process. MiQ reviews documents and requests additional information if necessary
MiQ review	MiQ reviews information package and requests additional information if necessary.
Interview	MiQ interviews Lead and Principal auditors listed in the application. The interview will focus on the subject matter expertise, auditing procedures and hypothetical scenarios. Demonstrated familiarity with MiQ Standard is required.
KYC approval	The auditor is KYC approved and accepted as an Accredited Auditor on the MiQ Digital Registry
Accreditation notification	MiQ informs the Auditor of its Accreditation decision for each Standard segment the Auditor has applied to
ACCREDITATION	

Auditor Requirements

An accredited auditing group must include an individual or group of individuals, known here as Principal Auditors, who are credentialed to the requirements below. An accredited auditing group may consist of a single firm, or multiple firms or individuals that, in combination, fulfil the necessary requirements and whose documents were submitted at the time of accreditation.

A single firm is not wholly accredited to the MiQ Standard. New divisions or geographically centralized teams within a given firm who wish to conduct audits must apply for accreditation separately.

Lead auditors must be involved in the audit process and attest to their assessment in signing of the final audit report. New or replacement Principal auditors must submit their credentials and supporting documents to MiQ to take part in any audit or signing of a final report. Secondary staff may support an audit process.

Auditors must submit application package and complete interviews to demonstrate their competency towards the subject matter expertise and credentials outlined below.

Application Requirements

- General Overview of Auditor/Auditing Firms: MiQ encourages Auditor/Auditing firm to state any/all relevant accreditations and standards adhered to (if available).
- Description of Auditing Process: how audits are conducted (chain of command, principal auditor, QA/QC)
- Geographies for which you serve.
- Experience with oil and gas clients, with specific detail paid to projects relevant to the MiQ Standard, and projects relevant to GHG emissions, air quality standards, environmental process design, and asset integrity.
- CVs of all auditing staff undergoing Accreditation, including identification of the individuals who will assume identify the Lead Auditor Role.
- State the industry segments for which you intend to apply for certification.
- Conflict of Interest Statement: description of processes used to manage and avoid conflicts of interest with prospective clients.

MiQ Auditor Requirements

1. Methane Intensity

- Demonstrated familiarity with the following:
 - Quality management for environmental systems
 - ISO 9001:2015 [1]
 - ISO 14001:2015 [2]
 - ISO 19011:2018 [3]
 - Similar internal management systems
 - Emissions inventory and information statement development and management
 - ISO 14064-1:2018 [4]
 - ISO 14064-3:2019 [5]
 - ISO 14065:2020 [6]
 - Demonstrated experience with completing, consulting to, or auditing emission inventories and reporting programs for various initiatives including EU ETS [7], CDM [8], CDP [9] and others.
 - Demonstrated experience of top-down and bottom-up methane emission quantification approaches, including developing and coordinating research projects, implementing quantification programs, and analyzing quantification data
 - Developing baseline absolute emissions and emissions intensities
 - Individuals have significant experience developing regulatory emissions inventories for relevant industry segments

2. Company Practices

- Individuals have experience with the following:
 - Process engineering experience in various oil and gas industry segments.
 - Environmental compliance experience in the oil and gas industry, including but not limited to;
 - Implementing procedures to minimize emissions from critical methane emission sources
 - Execution of programs to improve oil and gas company culture around methane emissions awareness and management, including operator training programs and corporate stewardship programs
 - Analysis of leak detection and repair (LDAR) program performance and improvement, *including* the use of advanced technologies such as continuous monitoring systems or intermittent plane/drone-based surveys
 - Experience regarding LDAR program reporting structures
 - Development of methane reduction programs and emissions management systems in the oil and gas industry
 - Project management experience
 - Professional engineering experience

- Professional auditing services experience and accreditation

**For oil and gas specific experience, Individuals should elaborate on specific experiences and specific segments of expertise (i.e. production, G&B, processing, transmission, liquefaction etc.)*

3. Monitoring Technology Deployment

- Individuals have experience with the following technologies and work practices associated with use of methane emissions monitoring technologies that may be used to comply with the MiQ Standard
 - Source-level leak detection survey technologies and methods including handheld OGI surveys or surveys compliant with USEPA Method 21 [10]
 - Facility-scale leak detection survey technologies and methods including vehicle-based, drone-based, fixed-wing aircraft-based, continuous monitoring systems etc.
- Individuals have experience evaluating methane emissions monitoring technology capabilities through single-blind independent release testing
- Individuals have experience evaluating LDAR program components, including but not limited to:
 - Technologies and detection methods used
 - Frequency and spatial coverage of each detection method
 - Critical environmental parameters that affect detection performance, and mitigation steps taken by company to minimize adverse impacts
 - Data collection, transfer and alarm systems for captured emissions events
 - Leak detection and reporting procedures
 - Leak repair procedures
 - Leak repair verification procedures
 - Leak detection and repair recordkeeping procedures
 - Compliance with LDAR repair timelines
 - Equipment training protocols
 - Technology calibration protocols

Public data

Limited information relating to certified Facility is made publicly available on miqregistry.org, and may include the asset name, asset location, operator, annual throughput, auditor, certification period and certification grade of each certified Facility. Additionally, anonymised aggregated data (such as total MiQ certificate issuances) may be published on miqregistry.org and miq.org and used in MiQ's public communications.

Further information

This document provides a high-level summary of the MiQ standard and the process for becoming an MiQ accredited auditor. To gain a deeper understanding of the MiQ Program consult the MiQ Standards for various segments and MiQ Program Guide at our website miq.org. Accredited auditors are also given access to various guidance documents to assist with the audit process.

Please contact info@miq.org for additional information.

Annex A: Document Status

Document Development

The MiQ Standard is a flexible framework that intends to change over time as understanding around methane emissions performance, management, quantification, measurement, and detection evolve and improve. The process described above may change over time and be made fit for purpose depending on other voluntary initiatives that an Operator may be involved with. Any changes to the audit process will be communicated to Facility Owners and Auditors and shared publicly with Stakeholders.

Version History

Table 1: Version History

Version	Revision Date	Summary of Change
v1.0	2020-05	First Online Publication
v2.0	2023-05	Removal of reference to Ex-Post/Ex-Ante Audit Addition of New Segment Standards Addition of Application Requirements Addition to Interview Requirements in Accreditation table

References

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