

Quality Management System (QMS) of the Austrian GHG Inventory

Overview

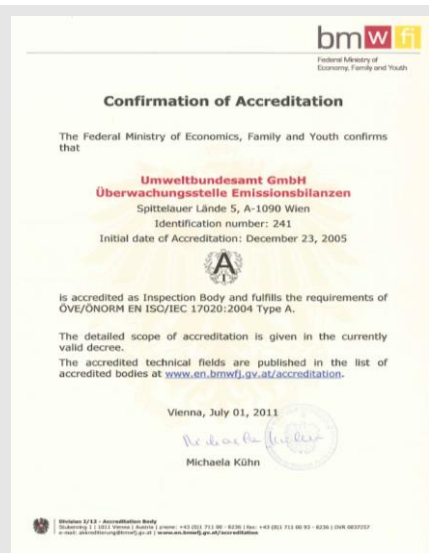
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Accreditation according to EN ISO/IEC 17020 (since 2005)

provides evidence of:

- (1) an efficient quality management system (ISO 9001)
- (2) technical competence of the involved staff
- (3) independence, impartiality, and integrity of the involved staff





Competence & impartiality

- Initial training and formal authorization
- Continuous training → basic course for reviewer
- Participation in international technical and political processes
- Transfer of knowledge (regular meetings, JF)
- Commitment for personnel (impartiality/independence, confidentiality) → no commercial, financial, other pressure to influence the technical judgement → such attempts have to be reported immediately to the HI



Elements of the EN ISO/IEC 17020

- General requirements
 - Impartiality and independence
 - Confidentiality
- Structural requirements (administration, organization, management)
- Resource requirements (personnel, equipment, subcontracting)
- Process requirements (methods and procedures, records, reports, complaints and appeals)
- Management System requirements (documentation, control of documents and records, Management Review, internal audits, corrective and preventive actions)



Management Review

- Review/Evaluation of the performance of previous year
- Review/Evaluation of the QMS
- Plan for next year

Input:

- Inventory Improvement Plan → TACCC, QA/Verification, ARR
 - Evaluation of fulfilment of previous plan
 - Decision on new plan
- QMS Improvement Plan → resources, trainings, internal audits
 - Evaluation of fulfilment of previous plan
 - Decision on new plan
- Annual report to the CEO → „IBE Management Review Report“



Different roles and responsibilities within IBE:

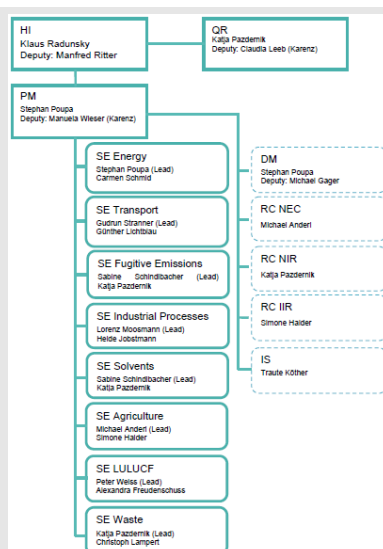
Key functions:

HI ... Head of Inspection
 QR ... Quality Representative
 SE ... Staff Emissions („Sector Expert“)
 SL ... Sector Lead

Supporting functions:

PM ... Project Manager
 DM ... Data Manager
 RC ... Report Coordinator
 IS ... Inventory Support

+ compilation Key Category Analysis and Uncertainty Assessment (designated staff)





QA/QC Plan

- QC activities – Tier 1, Tier 2
- QA activities – internal audits (QM specific), input data audits, expert peer reviews + procedures for country specific methodologies + procedures for sub-contracting
- Inventory improvement plan
- Documentation and archiving
- ...
- Procedures written down in the Quality Manual
- Resource intensive activities planned in the frame of the Management Review



QA – Accreditation audit

- Check of conformity of QMS with ISO/IEC 17020
 - to assess the QMS with regard to compliance with ISO 17020
 - to check its implementation in practice
 - to assure that measures and recommendations as set out in previous audits have been implemented accordingly
- Review of inventory compilation and calculation
- Follow-up/measures (Re-)Accreditation Audits (2005, 2011)
 - Audit Data Supplier – Statistic Austria
 - it was recommended to more clearly and consistently signify the calculation documents and to assure an immediate protection of data after finish of the inventory.



Documentation & Archiving

Documentation of:	Name of document	One document for	What should be documented
methodology → once when methodology is introduced or changed	EMI SOP	... every methodology	clear instruction for estimating emissions, or reference to methodology; defining of Tier 2 QC procedures
Background data and information	L... (Literature) P... (Post)	... every set of information	→ OLI Archive
Emission estimation → annually → „Log book“	EMI DOCU	... every SE	source of annual data, uncertainty, recalculation info, areas for further improvements, etc. (partly in calculation tool)



Archiving

Archiving system for

- literature
- mails
- documents (e.g. review reports)
- calculations

Access database with archiving information, to allow clear references in documentation of inventory ("EMI Doku")

Stored on server and/or in inventory archive (paper)



EMI Docu

- activities, references, assumptions
 - uncertainties
 - QC activities (Tier 1, Tier 2)
 - Recalculations (documentation, justification)
 - QC Recalculation
 - QC Resubmission
 - Information relevant for future years
- documentation of the emission calculation
- prepared/complemented annually
- to allow full reproduction of the sectoral inventory



Documentation (I)

System for transparent documentation of inventory data and information (assumptions etc.) that allows **reproduction of inventory**

Activity Source XY

Ref	Emissionfactor [g/Mg]
(1)	100
(1)	100
(2)	107
(3)	103
(3)	103

Documentation Source XY

Emission factors

Ref (1): taken from Study [L001]

Ref (2): see calculation sheet [B001]

Ref (3): based on assumption that...



IBE Improvement plan (I)

- Documentation of errors and planned/made improvements, sources:
 - external experts,
 - Head of Inspection Body,
 - Sector Experts,
 - Review → all findings from the UNFCCC Reviews (ARR) are documented + measures planned
- responsibility of the respective Sector Expert
- monitored by the Head of Inspection Body
- improvements that are relevant in terms of resources are presented in the Management Review to the CEO, and if additional resources are needed notification to the ministry
- IBE Improvements List – MS Excel (all sectors, general, QMS)



Contact & Information

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