Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

Expert Report

Quality Infrastructure Services for Renewable Energy Sources and Energy Efficiency in Latin America and the Caribbean
Project Nro 95309 / BMZ No.: 2015.2162.4

Technical Cooperation with   IAAC
Country | region: Latin America and Caribbean
Objective: Workshop "Interpretation of the ISO/IEC 17021-1:2015 and IAF MD applicable focused on the implementation of an accreditation programme for Energy Management System, ISO 50001"
City | country: Buenos Aires, Argentina
Duration: 9th- 11th May 2017

Reporter: Imilce Zuta
Function: Expert/No. contract 45001.04.236t
Date: 30th June 2017

Abbreviations | Explanation of terms used

AB	Accreditation Body
CAB	Conformity Assessment Body
CB	Certification Body
CgCRE	Coordinación General de Acreditación de INMETRO
EnMS	Energy Efficiency Management System
IAAC	Interamerican Accreditation Cooperation
IAF	International Accreditation Forum
IRAM	Instituto Argentino de Normalización y Certificación
IEC	International Electrotechnical Commission
ISO	International Standardization Organization
LAC	Latin American and Caribbean Countries
MD	Mandatory Document
NAB	National Accreditation Body
NMI	National Metrology Institute
OA	Organismo de Acreditación
OAA	Organismo Argentino de Acreditación
ONAC	Organismo Nacional de Acreditación de Colombia
PTB	Physikalisch-Technische Bundesanstalt
QI	Quality Infrastructure
R3E	Energy Efficiency and Renewable Energies
SI	International System (of Units)
SIM	Sistema Interamericano de Metrología
WG	Working Group

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1.   PRELIMINARY REMARKS

In the framework of the Quality Infrastructure, the Certification Bodies for Systems (CBS), recognized by the National Accreditation Bodies (NABs), are the Conformity Assessment Bodies (CABs) which certify the organizations in the implementation of the Energy Efficiency Management System (EnMS).

Currently we have the following situation for the ABs in Latin American and the Caribbean (LAC) countries:

NABs which has at least the QMS accreditation programme internationally recognized and has established the accreditation programmes for certifying EnMS according to ISO 50001: Brazil, Colombia, Chile and Mexico

NABs which has at least the QMS accreditation programme internationally recognized and has in process of implementation the accreditation programmes for certifying EnMS according to ISO 50001: Argentina and Costa Rica.

NABs which could have some interest in the process of implementation the accreditation programmes for certifying EnMS according to ISO 50001: El Salvador and Honduras by 2018.

The basis for the development of the accreditation programme of the EnMs according to ISO 50001 are:

a) ISO/IEC 17021-1:2015 Conformity assessment -- Requirements for bodies providing audit and certification of management systems -- Part 1: Requirements for bodies providing audit and certification of management systems -- Part 1: Requirements

b) IAF MD Documents[1]

c) ISO 50001 – Management System for Energy itself[2]

- [1] The IAF MD documents which will be addressed in the workshop, jointly with the ISO/IEC 17021-1:2015 will be:
- IAF MD 1:2007 Certification of Multiple Sites Based on Sampling
- IAF MD 2:2007 Transfer of Accredited Certification of Management Systems
- IAF MD 3:2008 Advanced Surveillance and Recertification Procedures (ASRP)
- IAF MD 4:2008 Use of Computer Assisted Auditing Techniques ("CAAT") for Accredited Certification of Management Systems
- IAF MD 5:2015 Determination of Audit Time of Quality and Environmental Management Systems
- IAF MD 10:2013 IAF Mandatory Document for Assessment of Certification Body Management of Competence in Accordance with ISO/IEC 17021: 2011
- IAF MD 11:2013 IAF Mandatory Document for Application of ISO/IEC 17021 for Audits of Integrated Management Systems (IMS)
- IAF MD 19:2016 IAF Mandatory Document For The Audit and Certification of a Management System operated by a Multi-Site Organization (where application of site sampling is not appropriate)

[2] It could be relevant also to address the ISO 50002:2014, Energy audits -- Requirements with guidance for use and the ISO 50003:2014 Energy management systems -- Requirements for bodies providing audit and certification of energy management systems. **This subject will be addressed in a second Workshop.**

The normative documents of a) and b) have been modified in the last two years, so NABs are faced with challenges to implement the resulting changes. So, an experience exchange on a regional level is aimed at harmonizing criteria established in the mentioned documents.

Thus, it has been developed a **first workshop** for supporting IAAC members in the development of the accreditation programme for certification bodies for EnMS in their countries in a harmonized way,   considering the last updated versions of the corresponding supportive documents. In the first workshop the focus of the training has been in the ISO 17021-1 and the IAF MD documents applicable. In a future **second workshop**, the training will be focused in the ISO 50001 standard[3]

2.   SUMMARY (IF NECESSARY, IN WORKING LANGUAGE)

The countries of the region which attended the workshop are involved in this management system as mentioned before are: Argentina, Brazil, Colombia, Costa Rica, Chile and Mexico. Other countries which could be interested are: El Salvador, Peru, and Uruguay

 (if necessary, in working language)

3.   OBJECTIVE

To Strengthen the capacities for accrediting Certification Bodies for Systems in Energy Management System according to ISO 50001 in LAC countries, through a better understanding of the interpretation of the requirements established in the ISO/IEC 17021:2015 and the IAF MD Documents:

The IAF MD documents which will be addressed in the workshop, jointly with the ISO/IEC 17021-1:2015 were:
- IAF MD 1:2007 Certification of Multiple Sites Based on Sampling
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4. IMPORTANT RESULTS OF THE EXPERT MISSION

With the developing of this workshop it has been fulfilled the first activity planned as part of the component 1 of the project, "Awareness", related also with the component 2 "Energy Efficiency".

Further discussion about key issues as:
- Competence of the personnel involved in the accreditation process of certification bodies for systems
- Stage 1 and Stage 2 of the Audit
- Summary of evidence of the capability of the management system to meet the requirements
- Audit scope of Option A and B proposed by the standard
- among others

with a consequent arrival to a common understanding of the requirement, including the content of the related IAF Documents.

Preparation of a document proposal which the more relevant harmonized criteria adopted by the group of the workshop in order to be presented to the Certification Body Sub-Committee of IAAC

Conformation of group among the AB representatives interested in the implementation of an accreditation programme for certifying EnMs.

4.1 GENERAL COMMENTS ON THE CURRENT SITUATION

We had a mix audience, some participants of ABs which have many years operating the Accreditation Program for Certification Bodies for System, other ones which have just some years in this activity and a little group of at least which has a very few or no experience in this activity and who are planning the implementation of this accreditation program. So the experts have to deal with this scenario.

During the workshop and based on the experience of the Experts the key subjects addressed and discussed were:

- Impartiality
- Competence criteria for personnel of the Certification Body
- Reference to Certification and Use of Marks
- External contracting
- Audit time.
- Selection of Audit team
- Multiple sites and temporary sites

4.2 DESCRIPTION OF THE CENTRAL ACTIVITIES AND RESULTS

The program of the Workshop (see 7.1 of this Report) was distributed and also explained at the beginning of the workshop.

While the issues were addressed during the workshop, the attendance realized many activities (including the topics mentioned in 4.1 of this Report) related to the accreditation program for Certification Bodies for Systems are defined in the IAF MD.

During the discussion, the Experts give examples according to their experience and the participation of the ABs with experience in this program as: CgCRE, OAA, ONAC among others was valuable for the workshop. Also particular situations that have arisen in the daily working of the ABs was useful for the audience to analyse and discuss them.

It was also very fruitful the participation of IRAM as representative of a Certification Body, because give us the view ot the customer of ABs in the certification process.

We had two practical activities related to:
- Determination the audit time
- Determination of the team auditor

So based on the discussion, the participants of the workshop, as member of their corresponding accreditation bodies and the instructors agreed that the requirements shown in the following table constitutes a support for the IAAC members who manage the Accreditation Programme of Certification Bodies for Systems.

Table

ISO/IEC 17021 REQUIREMENT		ADOPTED INTERPRETATION OF THE REQUIREMENT DURING THE WORKSHOP
7.2 Personnel involved in the certification activities		
7.2.10	----	The monitoring process for auditors may include any of the suggested evaluation methods in Annexe B of the ISO/IEC 17021-1 standard, but at least it shall include the methods requested in 7.2.10.
7.2.11	----	On-site evaluation for each auditor is a must.
9.6.3 Recertficiation		
8.3.3	----	Examples that should not be considered as product packaging according to the standard: - Coca-Cola, beer, juice cans - Wine, Water, Soda bottles - Peanuts, sugar, coffe, powder milk packs

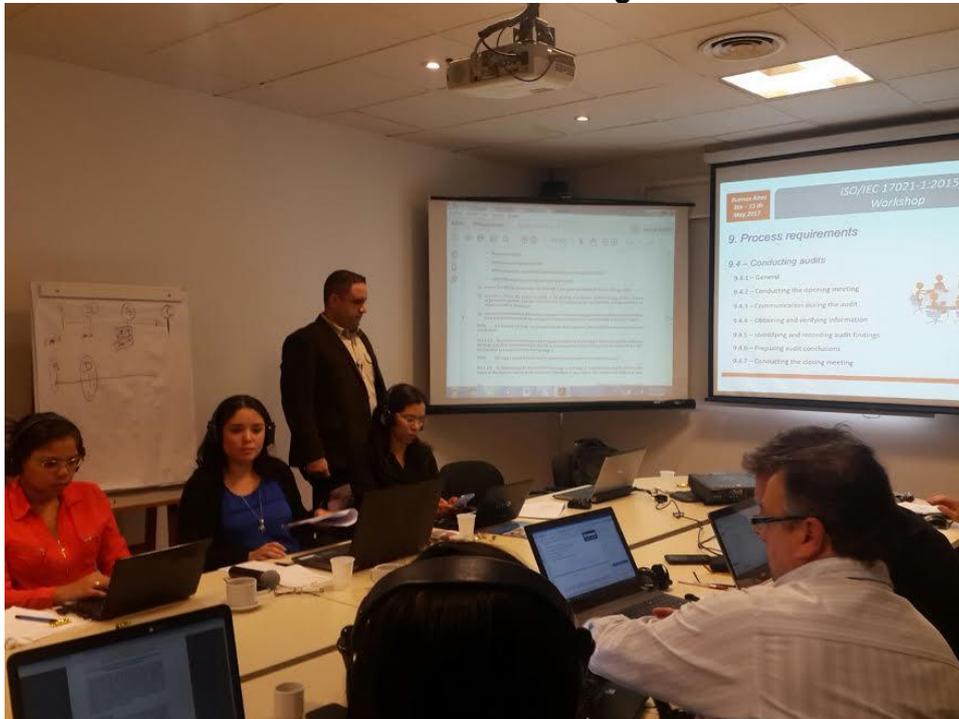| 9.3 Initial Certification		
9.3.1.2.2	Objectives of Stage 1:	The CB that has the practice of developing the stage 1 in the same day of stage 2 usually does not find any concern in the stage 1 in order to proceed to stage 2 without deviations from items 9.3.1.2.3 and 9.3.1.2.4 To do both activities in the same day is not a non conformity itself, however it represents a high risk of not achieving the objectives of the stage 1 (see item 9.3.1.2.2) and compromising the effectiveness of stage 2.
9.4 Conducting Audits		
9.4.8.3	Audit Report The report shall contain:	The CB that uses checklist formats and preset texts on audit reports is in high risk of omitting required information by this item.
9.5 Certification decision		
9.5.1.2.	----	The assessors of the AB should give special attention to the legal documents which define the relationship between the decisors, the CB and other entities which could be involved.
9.6.3 Recertification		
9.6.3.2.4 9.6.3.2.5	Restoration of the Certification	It is strongly suggested that ISO/IEC 17021-1 users refer to ISO/CASCO Clarification request answer of March 2016, which addresses this issue.
10. Management system requirements for Certification Bodies		
10.3	----	**Option B** It is expected that AB assessors evaluate compliance of the CB´s QMS against ISO 9001 requirements amplified by 10.3.2 to 10.3.4, instead of 10.2 requirements of 17021-1 standard.
Annexe A	Technical Expert in the Audit Team	The technical expert can be part of the audit team and its functions are referred in the **definition 3.14** and in the items 7.2.2, 7.2.4, 7.2.6, 7.2.7 and **9.2.1.2.3**

Additionally it was shown an ISO Clarification Request Form respect to the requirements 5.2.4 and 10.2.3.6 re. of the ISO/IEC 17021-1:2015 which is also added as an Annex to this Report that addressed this issues.

Finally, the practical activities help us to understand the application of the IAF MD Documents in some cases analysed during the workshop. So, there are different ways to conform the audit team and the time audit, depending on the competence of each member of the team.

Group Photo

Mauricio Pereira from CgCRE

Ricardo Rey from OAA

Imilce Zuta from PTB

Participation during the workshop

4.3   NEED FOR ACTION

To develop the future activities mentioned in 6. of this Report it is relevant the representative of ABs listed in 2. of this Report continue working according to its own plan in the implementation of the accreditation program for Certification Bodies for System in EnMS,

These countries constitutes the target group that are expected not only to implement the corresponding accreditation programme, but also, as possible, to accredit CBs for Systems for EnMS and in this way to promote the energy efficiency in the countries.

Below are the opinions expressed by the participants about the workshop. They are expressed in the same language they have been written

Opinions of the Participants:

About the Agenda:

- Muy buena, debido a que se compartió experiencia de los organismos que cuentan con proyectos de certificación. Colaboró a los países que no cuentan con la experiencia todavía.

About the Instructors:
- Excelentes instructores, con excelente disposición para compartir.
- En mi opinión, personal muy bueno, debido al apoyo con el idioma, tanto para los que hablan español a como inglés. Dando buenos ejemplos.

About the development of the workshop:
- Un seguimiento completo, desde la invitación, hasta el curso en persona.

What was the more useful subjects about the course?
- El intercambio de experiencia, ejemplos e interpretaciones compartidas entre los participantes. Los aportes en aquellos puntos grises de la norma, que me permitieron esclarecer algunos puntos.
- La experiencia aprendida de otros participantes. Conocimiento amplio y aclaración sobre dudas de la norma 17021-1.
- El intercambio de experiencia. Conocer de manos del certificador como aplica los requisitos de la norma.
- Unificar criterios de evaluación entre todos los OA.
- Los intercambios de opinión, visión y experiencia entre los OA de los distintos países.
- Intercambio con los organismos que ya certifican, es decir, oír experiencias de casos.
- Conocer los IAF MDs aplicables y compartir Los experiencias de otros organismos de acreditación.
- Conocer la implementación de los otros OAs acerca de los MDs mandatorios y la explicación dada por el instructor los MDs.

- La experiencia compartida con los OAs e IRAM.
- La participación de varios países de la región. La expectativa del auditorio.

Whart courses are more needed for you?
- Curso sobre la norma **ISO/IEC 17021-2, 17021-3** y otros aplicables a la gestión de la energía.
- La posibilidad que se organice los cursos **17021-2** y **17021-3.**
- **ISO/IEC 17065**.
- **ISO 50001.**
- **ISO 50001 e ISO 50003**.
- Para los organismos que inician con estos temas sería interesante abordar más a detalle la norma **ISO 17021-1**.
- **ISO 50001**.
- **ISO 50001**.
- Auditor competence.
- Todos los vinculados con energía, laboratorios e inspección.

Comentarios y Sugerencias

- Great Workshop.
- La calidad del servicio del hotel considerado como regular.
- Good Training.
- En general muy agradecida con la experiencia y el intercambio, apertura de los otros compañeros satisfecha con la organización y el apoyo del proyecto, porque estas autoridades nos ayudan a fortalecerlas.

5. CONCLUSIONS

Resolution of some gaps, the participants bring before the realization of the workshop, mainly for those ABs which are planning to implement this accreditation program or have some experience in developing this program.

The more experienced ABs realized the ways this accreditation program is managed in other countries. The IAF MD Documents are very useful tools to the development the certification activities. .

This activity give the ABs - interested in implementing the Accreditation Program for EnMS, according to the ISO 50001. The ISO 50003 Energy Management System. Requirements for bodies providing audit and certification of management systems – this workshop has been a good base to develop the accreditation program.

So afterwards, the activity related to the standards ISO 50001 and ISO 50003 (Part 2) is expected to be planned.

6.   RECOMMENDATIONS (FUTURE ACTIVITIES, NETWORKING POTENTIAL ETC.)

What	Name	When
1 Replication about the ISO/IEC 17021-1 and IAF MD Documents addressed during the workshop	Members of AB listed in 2. of this Report	Since June 2017 – December 2017
2. Inform about the process of implementation the Accreditation Program for Certification Bodies for Systems according to the ISO 50001 & ISO 50003	Members of AB listed in 2. of this Report	Since July 2017
3. Proposal of the realization of an ISO 50001 & ISO 50003 Training Workshop	IAAC	August 2017
4. To be presented in PSC	I.Zuta	October 2017
5 Follow up of activities	I.Zuta	Since July 2017

7.   APPENDIX TO THE EXPERT REPORT

7.1   AGENDA

Program

Time	Activity	Responsible
First Day: 07-10		
08:30	Regist ration	
09:00	***Morning***	
9:00	Welcome by representative of OAA and PTB	PTB Representative, I. Zuta OAA Representative, P. Másico
9:05	Introduction	I. Zuta
9:30	ISO 17021-1: 4, 5, and 6 *4.8 Risks, 5.2 Impartiality, 6.2 Operational control*	M. Pereira
10:30	Coffee Break	
10:50	ISO 17021-1: 7, Annex A , B, C and D, *7.1.2 Competence criteria, Annex A, 7.5 External contracting*	M. Pereira
11:40	IAF MD10	R. Rey
	Afternoon	
13:00	Lunch	

14:00	ISO 17021-1: 8 *8.2 Certification Documents, 8.5 communications*	M. Pereira
15:30	Coffee Break	
17:00	IAF MD 5	R. Rey
	ISO 17021-1 9.1 to 9.2 ; *9.1.4 audit time, 9.2.2 Selection of audit team,*	M. Pereira
18:00	*End of 1st day*	
Second Day: 07-11		
8:30	*Morning*	
9:00	ISO TS 17023, IAF MD1, MD 2, MD11,	R. Rey
10:30	Coffee Break	
11:00	MD4, MD3 and MD 19	R. Rey
12:00	ISO 17021-1: 9.3	M. Pereira
	Afternoon	
13:00	Lunch	
14:00	ISO 17021-1: 9.4.1 to 9.4.5	R. Rey
15:30		
16:00	ISO 17021-1: 9.4.6 to 9.4.9	M. Pereira
18:00	*End of 2nd day*	
Third Day: 07-12		
8:30	*Morning*	
09:00	ISO 17021-1: 9.5 to 9.6, Annex E *9.5.1 Responsibility for decision 9.5.2 Actions prior to decision*	M. Pereira
10:30	Coffee Break	
11:00	ISO 17021-1: 9.7 to 9.9 *9.8.3 Complaints againts clients*	M. Pereira
	Afternoon	
13:00	Lunch	
14:00	ISO 17021-1:10 *10.2.6 Internal audit, 10.2.7 Corrective action*	R. Rey
15:30	Coffee Break	
16:00	Questions and free discusion. Next steps	I. Zuta
17:30	Feedback. Attendants opinion survey	I.Zuta
18:00	*Closure*	I.Zuta

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7.2 CONTACTS

Name	Institution	Position	E-mail
Paola Mársico	OAA – Organismo Argentino de Acreditación	Responsible of the Accreditation Program for Management Systems Certification Bodies	mpmars@oaa.gob.ar
Mauricio Pereira	CgCRE - INMETRO	Professional of the Accreditation Program for Management System Certification Bodies	mppereira@inmetro.gov.br
Ricardo Rey	OAA – Organismo Argentino de Acreditación	Assessor	mpmars@oaa.gob.ar

7.3 UPDATE OF THE OPERATIONAL PLAN (OPTIONAL)

Update of the operational plan (optional)

7.4 UPDATE OF RESULTS-BASED MONITORING (OPTIONAL)

The plan of activities that has arisen, is being monitored.