

JCRB RECOMMENDATIONS FOR SELECTION CRITERIA FOR PEERS CONDUCTING ON-SITE VISITS AND GUIDE TO THE NEED FOR ON - SITE VISITS

1. Introduction

NMIs participating in the CIPM-MRA are obliged to establish the degree of equivalence of national standards by participation in key and supplementary comparisons.

The mutual recognition of an NMI's calibration and measurement capabilities (CMC) requires the operation of a quality system (QS) that complies with the JCRB requirements (JCRB-10/8(1c)) and has been reviewed and accepted by the local RMO.

CMCs have to be declared by the NMI and submitted for review to the local RMO for an intra-RMO review based on the JCRB requirements defined in JCRB-8/13(1b). After successful review they are then transmitted to the JCRB for additional inter-RMO review.

The peer review process for the QS and the intra-RMO peer review process for the CMC may require on-site visits by peers selected by the local RMO. While the requirements for the reviews are provided in the above noted JCRB documents, recommendations for on-site visits by peers and selection criteria for visiting peers are provided in this document. In addition this document also provides recommendations if the inter-RMO CMC peer review process requires an on-site visit by peers.

2. Criteria for on-site visit peer reviewers

2.1. General Characteristics

In general good peer reviewers are characterised by (see ISO 19011:2002):

2.1.1 Peer reviewer should:

- be open minded and mature and willing to consider alternative ideas or points of view;
- possess sound judgement, analytical skills, and tenacity;
- have the ability to perceive situations in a realistic way to understand complex operations from a broad perspective and to understand the role of individual units within an organisation;
- be able to distinguish crucial or essential points from less important ones;
- be ethical – fair, truthful, sincere, honest and discreet;
- be diplomatic – tactful in dealing with people;
- be observant – actively aware of physical surroundings and activities and habits;
- be tenacious – persistent, focused on achieving objectives;
- be decisive – reaches timely conclusions based on logical reasoning and analysis;
- be self-reliant – acts and functions independently while interacting effectively with others.

2.1.2 Peer reviewer should be able to apply the attributes of 2.1.1 in order to:

- obtain and assess objective evidence fairly;
- remain true to the purpose of the assessment without fear or favour;

- evaluate constantly the effects of assessment observations and personal interactions during an assessment;
- treat concerned personnel in a way that will best achieve the assessment objective;
- perform the assessment process without deviating due to distractions;
- react effectively in stressful situations;
- arrive at generally acceptable conclusions based on assessment observation.

2.1.3 Knowledge and Skills

Peer reviewers should

- possess the knowledge and skills to apply review principles, practices and techniques to actual review situations and apply them to different reviews and still ensure that the reviews are conducted in a consistent and systematic manner. This knowledge and these skills include all the steps in the review process;
- be particularly skilled in review performance techniques;
- have a general knowledge of quality systems and processes typical of the type of NMI to be reviewed.

2.2. Selection Criteria

2.2.1 General

The criteria used for selection of a peer reviewer should be performance oriented and flexible enough so that reviewer suitability is judged on a case-by-case basis taking into account factors such as education and demonstrated working knowledge, working experience, training, and assessment experience, communication/ interpersonal skills and auditing skills. Reviewers should be independent of the NMI being reviewed and the occasional use of reviewers from other regions is encouraged. In general, reviewers should be selected from an NMI which is at either a comparable or a more established level relative to the NMI being reviewed.

2.2.2 Qualification

At least a degree qualification in a scientific/technological discipline. In some cases, extensive experience in the relevant fields of expertise may be substituted for formal education. In addition, the following pointers are also desirable in which reviewers should have:

- past or present member of an RMO Technical Committee;
- participation in key and supplementary comparison programs;
- publication record in internationally refereed metrology journals;
- experience in undertaking national or international assessments of calibration or testing in laboratories.

2.2.3 Working Experience

A peer reviewer must have:

- at least five years experience in providing/ being responsible for a calibration service in a technical field relevant to the CMCs being investigated, two of which should include quality management, quality assurance or quality system auditing related to laboratory activities at the NMI level;
- in the absence of quality system experience the peer reviewer should, during the assessment, work with a quality system expert who has participated in assessments for accreditation by recognised accreditation providers.

Peer reviewers should be conversant in the language in which the relevant documentation is provided.

2.2.4 Training

Peer reviewers should have successfully completed a training course in understanding the ISO/IEC 17025 requirements conducted by a recognised accreditation body or equivalent.

3. Guide to the need for on-site visits

3.1 Quality system review

According to JCRB-10/8(1c) it is the obligation of each RMO to review the QS of its member NMIs. For compliance with this requirement all RMOs have established special committees which have developed their own specific approval procedures.

Some RMOs make use of a specific option outlined in JCRB-10/8(1c) under “2.1 General Guidelines”:

- If considered necessary, the RMO may request that review visits by ‘peers’ be undertaken, in order that the NMI may demonstrate confidence and capability in their claimed CMCs. The NMI itself may request the review visits by peers. Where such visits take place, the RMO must ensure that the ‘peers’ have the necessary experience and are suitably qualified and independent.

This is used where an RMO requires third party accreditation to ISO17025 using NMI peers as technical assessors. The NMI itself may also ask for an on-site visit by NMI peers in order to establish the required confidence in the quality system.

Other RMOs use on-site visits by peers only for those cases where the regular procedures set up by their QS-review committees can not establish sufficient confidence to confirm the QS under review.

In all these cases the peers used should meet the requirements given in section 2 above.

3.2 CMC Review

3.2.1 Intra-RMO CMC review

Within the RMOs technical committees (TCs) are responsible for CMC review on the basis of the criteria outlined in JCRB-8/13(1b).

A TC can gain confidence in CMCs based on information from ISO17025 accreditation reports where peers satisfying the criteria in section 2 have been used as technical assessors.

In the case that the TC is in doubt of the competence and capability of the submitting NMI, it can decide on an on-site visit by peers in order to decide on acceptance or rejection of the respective claims.

In addition a TC can decide on an on-site visit by peers if the TC has obtained information that casts doubt on competence and capabilities of an NMI in respect of already accepted CMC.

Further, an NMI may ask for an on-site visit by NMI peers in order to establish the required confidence in their CMCs.

In all cases the TC decides on a peer or a team of peers to obtain the needed information. If the TC finds it necessary to name more than one peer it should name a team leader who will be responsible for the conduction of the on-site visit.

Peers selected by a TC for an on-site visit should meet the criteria given in section 2.

3.2.2 Inter-RMO CMC review

On-site visits are foreseen by the CIPM-MRA as a tool for intra-RMO review of fulfilling the requirements of the MRA.

In the inter-RMO review of CMC it is expected that the RMO reach agreement by communication. In the extraordinary case that even after best effort an agreement can not be reached between the RMO experts the involvement of the responsible CC of the CIPM is recommended:

If at the end of an inter-RMO CMC review the reviewers come to the conclusion that they can not resolve the issue, they report this via their TC chairperson and RMO chairperson to the JCRB. The JCRB chairperson brings the subject to the attention of the responsible CC of the CIPM and asks for a solution. The CC will then discuss the subject in the appropriate working group, where the members with the highest competence in the field under review can be found.

If the differences of opinion can not be solved by correspondence it is the right of the working group to name a peer or a team of peers and request an on-site visit if such a visit is seen as helpful to resolve the issue. The peer(s) should fulfil the criteria given in section 2.

3.3 Notification procedures and dispute settlements

It is expected that the committee asking for an on-site visit by peers and the NMI submitting its QS or CMC for review will cooperate in the most effective way to minimize the efforts for both the participating peers and the participating NMI. For the case of diverging opinions about the procedures and time frames of the on-site visits the following recommendations are provided:

The Chairperson of the involved committee informs the director of the NMI and the Chairperson of the RMO of the decision that for further processing of the submitted QS or CMC claims an on-site visit by peer(s) of the committee is required together with the names of the selected peer(s) and the list of the open questions.

The NMI will inform the committee chairperson and the RMO chairperson if the NMI is willing to accept the visit. If the NMI refuses the visit it has to provide the reasons for the refusal to the committee chairperson and the RMO chairperson. In this case the RMO chairperson will try to arbitrate an on-site visit agreement. Until this agreement is achieved, the review is on hold. If the visit is requested for the confirmation of CMC already in the KCDB the CMC have to be withdrawn when no agreement on an on-site visit has been achieved within one year.

If the NMI accepts the visit but refuses the suggested peer or peers the chairperson of the committee and the director of the NMI will try to arbitrate an on-site visit. If no agreement can be reached the review remains on hold.

It is the responsibility of the visited NMI to cover the travel and subsistence costs of the peer(s) if not otherwise agreed by the participants.

After the visit the peer(s) will provide a written report on the findings at the NMI including the answers to the list of open questions. The report is submitted to the committee chairperson with copies to the RMO chairperson and the director of the visited NMI.

The committee will then decide with the help of the report on the CMC claims of the NMI.