

Lab Management Review & Report

What is a Management Review?

The formal definition of a management review for a National Institute of Standards & Technology (NIST) Recognized Metrology Laboratory can be found in [NIST Handbook 143](#).

Management Review – *“A planned, formal review of the management system by the parties in the organization. To include a high-level overview and a review of the organization structure, roles and responsibilities, planning, operation, policies, practices, rules, beliefs, objectives, and processes to achieve organizational goals.”*

It's an opportunity to step back and look at the “big picture” to see whether the lab's policies, procedures, and resources continue to meet both the requirements of [ISO/IEC 17025:2017](#) and the needs of customers. It's a strategic checkpoint to make sure the lab remains compliant and effective by asking some simple questions:

- Are the laboratory processes, policies, and procedures working?
- Are there opportunities for improvement?
- Are there any risks that need addressing?
- Are there resource needs?

In practice, what a management review looks like varies from one lab to another, but a management review is typically completed by the highest-ranking member of a lab's staff and presented to the highest level of management available to ensure management understands what is happening in the lab, and support the lab requires from management, and what resources it takes to operate a metrology lab. Along with any meeting or presentation, a management review must include a report of the information presented to management and any action items or decisions made during these discussions.

The results of the Management Review and Report should feed into laboratory objectives, actions, and planning for future. The Management Review is also an opportunity to practice good business communication. Prep and share information (agenda, key background documents) with participants before meeting, follow the agenda (goals and allotted meeting time) during the meeting and after the meeting share a recap with next steps to all participants.

How often are Management Reviews required?

These reviews must happen at least annually but can be more frequent depending on how involved upper management is with the lab on an ongoing basis. When applying for [NIST Office of Weights & Measures \(OWM\)](#) Recognition, the review must be completed within 6 months of the application date.¹

¹ Due dates for submission are either November 1st or November 15th, depending on the Regional Measurement Assurance Program your state belongs to.

What must be covered in a Management Review?

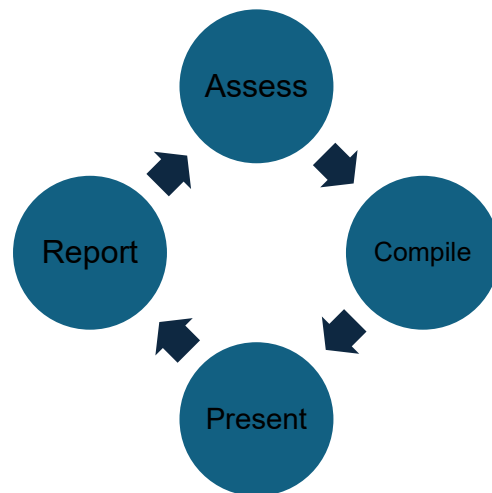
While [ISO/IEC 17025:2017](#)² section 8.9 outlines the items that must be included and recorded as part of a management review, but the review should also include any other important information about the lab.

In general terms a Management Review must address the following:

- A review of the Quality Management System (QMS) at regular intervals
- Any internal or external issue affecting the laboratory
- If the lab is fulfilling its objective, following its policies, and using correct procedures
- Monitor laboratory activities, training, and resources
- Include any feedback from audits (internal and external) and customer
- Identification of risks
- Engagement of upper management and resources need (time, personnel, equipment, training)

What does conducting a Management Review look like?

A Management Review should be a formally structured meeting, which follows a process assessing the laboratory, to ensure all necessary information is covered with time and a method for questions, feedback, and acknowledgement from management. These meetings can also include a tour of the laboratory for the upper management, especially if they don't visit the facility regularly.



Who to invite to a Management Review?

[ISO/IEC 17025:2017](#) doesn't outline who to invite other than "laboratory management" so it's completely up to the person carrying out the review to decide who to invite for the meeting. It is suggested that all lab staff, top management, and possibly representatives from IT, purchasing, legal, administration, and human resources be invited to the meetings. Typically, not everyone who is invited will attend, so it is important to include them in before and after meeting communications.

It is beneficial for any department who provides support to the laboratory to understand and learn about the challenges and needs of the lab. For example, having Information Technology (IT) involved can help them understand that updates cannot be made to computers without input from the lab, in accordance with Software Verification and Validation processes and requirements. Involving the purchasing department can help them understand our purchasing needs for accredited calibrations.

² ISO/IEC 17025:2017 is a document that must be purchased by each metrology laboratory to receive a copy of the Internal Audit from NIST OWM

Common approaches to conducting a Management Review

1. The laboratory manager creates a presentation once each year for upper management who are responsible for the lab and creates a report which documents the meeting and any action items discussed.
2. The laboratory manager meets bi-monthly or quarterly throughout the year with one or more members of upper management to keep them abreast of the laboratory. Notes and action items from these regular meetings are compiled for a formal review and report annually.

Tips from metrologists around the country

- Make sure everyone in attendance knows the purpose of the metrology laboratory
- Highlight and focus on items that require attention and approval of personnel above the lab level and plan for the coming year(s).
- Schedule the meeting so there is time to work on any follow-ups prior to the OWM Recognition Submission or Accreditation
- Send the Executive Summary or a Report ahead of the meeting to allow people to come up with questions and understand challenges and important goals.
- Use proper terminology and relate the terminology to common language for non-metrologists. Examples and case studies of what works are often the best way to relate.
- Try to hold these meetings in person at the laboratory for the greatest impact.
 - Have light snacks if the meeting is in person; these meetings can run long
- While not required, this is a good time to show your management how impactful your laboratory is
 - Number of customers
 - Statistics on how much of the state economy is related to metrology
 - Brag about your lab wins

Creating a Management Review Report

None of the documentary standards prescribe a specific format. What matters is that the report documents the required information and anything else that is relevant to the laboratory staff, management, and recognition or accreditation bodies. Any format is acceptable. Choose what would best be received by your management. Be sure required inputs/outputs from [ISO/IEC 17025:2017](#) are addressed, decisions are recorded, and management involvement is clear. NIST OWM provides an example [Management Review Outline](#) based on the 2019 version of [NIST Handbook 143](#) with section headers and content prompts. Some labs use this outline and fill in the information for each section as it applies to them (this is an easy way to get started), while some use this as a guide for creating their own report (using PowerPoint slides or minutes from the presentation as a part of the report), and some labs create their own report and just ensure it contains all the information required in the Management Review and any other discussion items from the meeting(s).

Tips from metrologists around the country

- Get everyone in the lab to contribute to preparation for and writing the report (assign small sections to everyone)
- Well written and prepped executive summaries from PT follow-up reports, internal audits,

- and feedback letters pull easily and directly into the Management Review.
- Ask lab staff to identify top five risks to the program as a part of the risk assessment
- Send a final copy of the report to upper management and ask that they sign off on the final version
- Organize records and be sure to capture and record emails/Teams chats that speak to decisions, outputs, and schedules.

Additional Resources

[NIST Webinar - Conducting an Effective Management Review](#)

[NIST Handbook 143, Appendix B – Definitions and guidance](#)

[ISO/IEC 17025:2017 – Clause 8.9, Management Reviews](#)

[ANAB Webinar - The Do's and Don'ts of Management Review](#)

[Perry Johnson - ISO/IEC 17025:2017 Section 8.9 - Management Review](#)

[APLAC Management Review for Laboratories and Inspection Bodies](#)