


INTERNATIONAL ACCREDITATION SERVICE®

IAF Mandatory Document – MD 5:2019
 (Determination of audit time of quality, environmental & Occupational health and safety management systems)

Definitions




Duration of management system certification audits :

Audit activities normally include:

- conducting the opening meeting
- performing document review while conducting the audit
- communicating during the audit
- assigning roles and responsibilities of guides and observers
- collecting and verifying information
- generating audit findings
- preparing audit conclusions
- conducting the closing meeting

Audit Day - normally 8 hours and may or may not include a lunch break depending upon local legislation.

Definitions



Effective Number of Personnel

- The effective number of personnel consists of all personnel (permanent, temporary, and part-time) involved within the scope of certification including those working on each shift.
- For OH&SMS it shall also include personnel from contractors and subcontractors performing work or work-related activities that are under the control or influence of the organization.

Risk Category (QMS only)


- Dependent on the risks posed by failure of the product or service of the client organization considered as high, medium or low risk
- High risk activities normally require more audit time.
- Medium risk activities are likely to require the average time to carry out an effective audit and low risk activities less time.

Complexity Category(EMS only)

- Are based on five primary complexity categories of the nature, number and gravity of the environmental aspects of an organization that fundamentally affect the audit time.

Complexity Category (OH&SMS only)


- Are based on three primary complexity categories based on the nature, number and severity of the OH&S risks of an organization that fundamentally affect the audit time.

Application 


Audit Time :

- The audit time for all types of audits includes the **total time on-site** at a client's location (physical or virtual) and time spent **off-site** carrying out planning, document review, interacting with client personnel and report writing.
- The duration of a management system certification audit should typically not be less than 80% of the audit time calculated. This applies to initial, surveillance and recertification audits.
- Travel (en-route or between sites) and any breaks are not included in the on-site duration of management system certification audits.

There may be a local legal requirement to include lunch breaks

Audit Day(s) 

- Tables shown in the document cover the **average** audit time of management system certification audits calculated in audit days.
- National adjustments on the number of days may be needed to comply with local legislation for travel, lunch breaks and working hours
- The number of audit days allocated shall not be reduced at the planning stages by programming longer hours per working day.
- Consideration can be made to allow efficient auditing of shift activities which may require additional hours in a working day.
- If after the calculation the result is a decimal number, the number of days should be adjusted to the nearest half day (e.g.: 5.3 audit days becomes 5.5 audit days, 5.2 audit days becomes 5 audit days).
- The CAB should also consider the composition and size of the audit team (e.g. ½ day with 2 auditors may not be as effective as a one day audit with 1 auditor or 1 audit day with one lead auditor and one technical expert is more effective than 1 auditor day without the technical expert).

Calculation of the Effective Number of Personnel 

- The effective number of personnel is used as a basis for the calculation of audit time of management systems.
- The effective number of employees include part-time personnel and employees partially in scope, those working on shifts, administrative and all categories of office staff, repetitive processes and the employment of large numbers of unskilled personnel in some countries.
- In case of seasonal operations (e.g. harvesting activities, holiday villages and hotels, etc.) the calculation of the effective number of personnel shall be based on the personnel typically present in peak season operations.
- Reductions due to employment of large numbers of unskilled personnel shall not be made without consideration of the associated OH&S risk
- The justification to determine the effective number of personnel shall be available to the client organization and to the Accreditation Body for review
- Part time personnel and employees partially in scope Dependent upon the hours worked, part time personnel numbers and employees partially in scope may be reduced or increased and converted to an equivalent number of full time personnel.

Factors to be considered while Calculating the audit time

Repetitive process within scope :

- When a high percentage of personnel perform certain activities/positions that are considered repetitive (e.g. cleaners, security, transport, sales, call centers, etc) a reduction to the number of personnel which is coherent and consistently applied on a company to company basis within the scope of certification is permitted.
- The methods incorporated for the reduction shall be documented to include any consideration of the risk of the activities/positions.
- For OH&SMS, when a high percentage of personnel perform certain activities/positions that are considered similar or identical (exposed to similar risks) a reduction is permitted. The methods shall be documented to include any consideration of the risk of the activities/positions. For groups of workers performing repetitive jobs which can reduce attention, and raise the associated level of OH&S risk (e.g. mounting, assembling, packaging, sorting, etc.), the methods incorporated for possible reductions shall be documented to include the assessment of the OH&S risk of any activities/positions of workers.

Shift work employees :

- The CAB shall determine the duration and timing of the audit which will best assess the effective implementation of the management system for the full scope of the client activities, including the need to audit outside normal working hours and various shift patterns.
- This shall be agreed with the client.

Factors to be considered while Calculating the audit time


Temporary unskilled personnel :

- Temporary unskilled personnel may be employed in considerable numbers to replace automated processes. Under these circumstances a reduction in effective personnel may be made, but the consideration of processes is more important than employee numbers.
- This reduction is unusual and the justification for doing so shall be recorded and made available to the AB at assessment.
- For OH&SMS this reduction is in principle to be regarded as not applicable since the employment of temporary unskilled personnel can be a source of OH&S risks. If, in exceptional cases, a reduction is made, the justification for doing so shall be recorded and made available to the AB.

Methodology for determining audit time of management systems

- Annex A (QMS) is based upon the effective number of personnel and the level of risk, but does not provide minimum or maximum audit time. In addition to effective number of personnel,
- Appendix B (EMS) is based also on the environmental complexity of the organization and does not provide minimum or maximum audit time.
- Annex C (OH&SMS) is based upon the effective number of personnel and the complexity category of OH&S risk associated with the business sector of the organization and does not provide a minimum or maximum audit time.
- Using a suitable multiplier, the same tables and figures may be used as the base for calculating audit time for surveillance audits and recertification audits.

Methodology...




- Apart from the number of personnel, the time required to carry out an effective audit depends upon other factors for both QMS, EMS and OH&SMS.
- This MD lists the provisions to be considered when establishing the amount of time needed to perform an audit.
- These and other factors need to be examined during the CAB's application review process and after Stage 1 and throughout the certification cycle and at recertification for their potential impact on the determination of audit time regardless of the type of audit.
- The relevant tables, figures and diagrams which demonstrate the relationship between effective number of personnel and complexity, **cannot** be used in isolation. These tables and figures provide the framework for audit planning and therefore required adjustments for the determination of audit time for all types of audits.

For QMS audits, Figure QMS 1 and Table QMS1 provides a visual guide for a starting point based on the total effective number of personnel for all shifts.

For EMS, the audit time is based on the effective number of personnel and the nature, number and gravity of the environmental aspects of the typical organization in that industry sector.

For an OH&SMS audit, it is appropriate to base audit time on the effective number of personnel of the organization and nature, number and severity of the OH&S risks of the typical organization in that industry sector.

Methodology...




Steps involved

- Identify the effective number of personnel.
- Apply the significant factors for addition or reduction in audit time.
- The basis for the establishment of audit time including adjustments made shall be recorded.
- The variation in audit time does not lead to a compromise on the effectiveness of audits.
- Where product or service realization processes operate on a shift basis, the extent of auditing of each shift depends on the processes done on each shift, and the level of control of each shift
- To audit effective implementation, at least one of the shifts shall be audited.
- The justification for not auditing the other shifts (e.g. those outside of regular office hours) shall be documented.

The audit time of management systems determined using the tables or figures in Annexes A and B shall not include the time of 'auditors-in-training', observers or the time of technical experts.


The reduction of audit time of management systems **shall not exceed 30%** of the times established from Tables QMS 1 or EMS 1 or OH&SMS 1.

Audit Time Determination




- Determination of audit time of management systems involved in combined offsite activities **should not** reduce the total **on-site** duration of management systems audits to less than 80% of the audit time.
- Where additional audit time is required for planning and/or report writing, this will not be justification for reducing the on-site duration.
- The audit time determined by the CAB and the justification for the determination shall be recorded. This calculation shall include details on the time to be allocated to cover the entire scope of certification.
- The CAB shall provide the audit time determination and the justification to the client organization as part of the contract and make it available to its Accreditation Body upon request.
- Certification audits may include remote auditing techniques. For OH&SMS, these activities shall be limited to reviewing documents/records and to interviewing staff and workers. In addition for OH&SMS, processes control and OH&S risk control cannot be audited using remote audit techniques.
- These activities shall be identified in the audit plan, and the time spent on these activities may be considered as contributing to the total duration of management systems audits.
- If the CAB plans an audit for which the remote auditing activities represent more than 30% of the planned on-site duration of management systems audits, the CAB shall justify the audit plan and maintain the records of this justification which shall be available to an Accreditation Body for review

Surveillance




- During the initial three year certification cycle, audit time for surveillance audits should be proportional to the audit time spent on the initial certification audit, with the total amount of time spent annually on surveillance being about 1/3 of the audit time spent on the initial certification audit.
- The CAB shall obtain an update of client data related to its management system as part of each surveillance audit.
- The planned audit time of a surveillance audit shall be reviewed at least at every surveillance and recertification audit to take into account changes in the organization, system maturity, etc.
- The evidence of review including any adjustments to the audit time of management systems audits shall be recorded.
- *It is unlikely that a surveillance audit will take less than one (1) audit day.*

Recertification




- The audit time for the recertification audit should be calculated on the basis of the updated information of the client.
- The audit time for the recertification is normally approximately 2/3 of the audit time that would be required for an initial certification audit of the organization if such an initial audit were to be carried out at the time of recertification **not** 2/3 of the original time spent on the initial audit.
- The audit time of management systems shall take account the outcome of the review of system performance
- *It is unlikely that a recertification audit will be less than one (1) audit day.*

Individualized second and subsequent certification cycles




- For the second and subsequent certification cycles, the CAB may choose to design an individualized surveillance and recertification program (see IAF MD3 for Advanced Surveillance and Recertification Procedures – ASRP) with approval by the Accreditation Body.
- If an ASRP approach is not chosen the audit time of management systems should be calculated as normal

Factors for adjustments of audit time of management systems (QMS, EMS & OH&SMS) 

The additional factors that need to be considered include but are not limited to:

i) Increase in audit time of management systems :

- a. Complicated logistics involving more than one building or location where work is carried out. e.g., a separate Design Centre must be audited.
- b. Staff speaking in more than one language (requiring interpreter(s) or preventing individual auditors from working independently).
- c. Very large site for the number of personnel (e.g., a forest).
- d. High degree of regulation (e.g. food, drugs, aerospace, nuclear power, etc.).
- e. System covers highly complex processes or relatively high number of unique activities.
- f. Activities that require visiting temporary sites to confirm the activities of the permanent site(s) whose management system is subject to certification
- g. Outsourced functions or processes.


Factors for adjustments of audit time of management systems (QMS, EMS & OH&SMS) 

ii) Increase in audit time of management systems for QMS only:

- a. Activities considered to be of high risk (see Annex A, Table QMS 2).


iii) Increase in audit time of management systems for EMS only:

- a. Higher sensitivity of receiving environment compared to typical location for the industry sector.
- b. Views of interested parties.
- c. Indirect aspects necessitating increase in audit time.
- d. Additional or unusual environmental aspects or regulated conditions for the sector.
- e. Risks of environmental accidents and impacts arising, or likely to arise, as consequences of incidents, accidents and potential emergency situations, previous environmental problems that the organization has contributed to.

Factors for adjustments of audit time of management systems (QMS, EMS & OH&SMS) 


iii) Increase in audit time of management systems for OH&SMS only:

- a. Views of interested parties,
- b. Rate of accidents and occupational diseases higher than average for the business sector,
- c. If the members of the public are present on the organization's site (e.g. hospitals, schools, airports, ports, train stations, public transport),
- d. The organization is facing legal proceedings related to OH&S (depending on the severity and impact of risk involved),
- e. The temporary large presence of many (sub)contractors' companies and their employees causing an increase in complexity or OH&S risks (e.g. periodical shutdowns or turnaround of refineries, chemical plants, steel manufacturing plants, and other large industrial complexes),
- f. Where dangerous substances are present in quantities exposing the plant to the risk of major industrial accidents, in accordance with the applicable national regulations, and/or risk assessment documentation,
- g. Organization with sites included in the scope in other countries than the mother site country (if legislation and language are not well known).


Factors for adjustments of audit time of management systems (QMS,EMS & OH&SMS) 

iv) Decrease in audit time of management systems:

- a. Client is not "design responsible" or other standard elements are not covered in the scope (QMS only).
- b. Very small site for number of personnel (e.g. office complex only).
- c. Maturity of management system.
- d. Prior knowledge of the client management system (e.g. already certified to another standard by the same CAB). For OH&SMS this means already certified in another voluntary OH&SMS scheme.
- e. Client preparedness for certification (e.g. already certified or recognized by another 3rd party scheme). For OH&SMS this means already subject to periodical audits by the National Authority for a mandatory governmental OH&SMS scheme.
- f. High level of automation (not applicable for OH&SMS).
- g. Where staff include a number of people who work "off location" e.g. salespersons, drivers, service personnel, etc. and it is possible to substantially audit compliance of their activities with the system through review of records (not applicable for OH&SMS).

Temporary sites 

- In situations where the certification applicant or certified client provides their product(s) or service(s) at temporary sites, such sites shall be incorporated into the audit programs.
- Temporary sites could range from major project management sites to minor service/installation sites. The need to visit such sites and the extent of sampling should be based on an evaluation of the risks of the failure of the QMS to control product or service output or the EMS to control environmental aspects and impacts or the OH&SMS to control OH&S risks associated with the client's operations.
- For QMS and EMS the sample of sites selected should represent the range of the client's scope of certification, competency needs and service variations having given consideration to sizes and types of activities, and the various stages of projects in progress and associated environmental aspects and impacts.
- For OH&SMS the sites included in sampling should represent the client's scope of certification, sizes and types of activities and processes, type of hazards involved and associated OH&S risks, and stages of projects in progress.

Temporary sites 

Typically on-site audits of temporary sites would be performed. However, the following methods could be considered as alternatives to replace some on-site audits:

- i) Interviews or progress meetings with the client and/or its customer in person or by teleconference.
- ii) Document review of temporary site activities.
- iii) Remote access to electronic site(s) that contains records or other information that is relevant to the assessment of the management system and the temporary site(s).
- iv) Use of video and teleconference and other technology that enable effective auditing to be conducted remotely.

For OH&SMS the above methods could be considered as alternatives to replace only those parts of on-site audits not related to witness the process control and other OH&SMS risk control.

In each case, the method of audit should be fully documented and justified in terms of its effectiveness.

Audit time of a multi-site management system

- In the case of a management system operated over multiple sites it is necessary to establish if sampling is permitted or not.
- For OH&SMS, the decision if site sampling is permitted or not, shall be based on the evaluation of the level of OH&S risks associated with the activities and processes carried out in each site included in the scope of certification.
- Records of such evaluations and rationale of decisions taken shall be made available to the AB.
- The requirements for multiple site management system certification are covered by IAF MD 1.

Control of externally provided functions or processes(outsourcing)

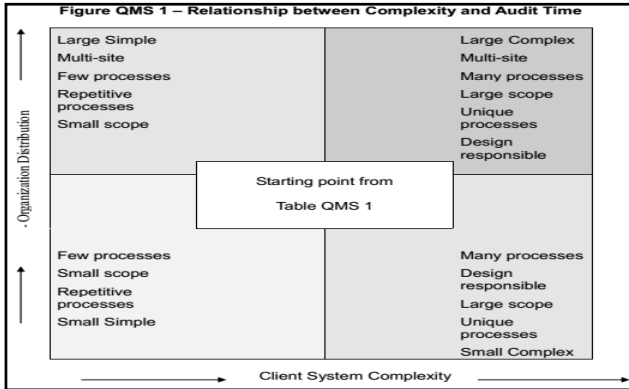
- The CAB to obtain evidence that the organization has effectively determined the type and extent of controls to be applied
- For QMS and EMS the CAB will audit and evaluate the effectiveness of the client's management system in managing any supplied activity and the risk this poses to the delivery of objectives, customer and conformity requirements.
- Auditing the supplier's management system is not required, considering that it is included in the scope of the organization's management system only the control of the supplied activity, and not the performance of the activity itself.
- For OH&SMS the CAB will audit and evaluate the effectiveness of the organization's OH&SMS in managing any supplied activity and the risk this poses to OH&S performance of its own activities and processes and conformity requirements.
- Although the provider's management system is not required to be audited, the CAB shall audit the controls
- The contractor's personnel who operate at the organization's premises, on processes included in the scope of the organization's OH&SMS, shall be interviewed to evaluate their OH&S awareness.

Annex A – QUALITY MANAGEMENT SYSTEMS

Table QMS 1 – Quality Management Systems

Relationship between Effective Number of Personnel and Audit Time (Initial Audit only)

Effective Number of Personnel	Audit Time Stage 1 + Stage 2 (days)	Effective Number of Personnel	Audit Time Stage 1 + Stage 2 (days)
1-5	1.5	626-875	12
6-10	2	876-1175	13
11-15	2.5	1176-1550	14
16-25	3	1551-2025	15
26-45	4	2026-2675	16
46-65	5	2676-3450	17
66-85	6	3451-4350	18
86-125	7	4351-5450	19
126-175	8	5451-6800	20
176-275	9	6801-8500	21
276-425	10	8501-10700	22
426-625	11	>10700	Follow progression above



Risk Categories of QMS

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Examples of Risk categories :

- High risk :**
Where failure of the product or service causes economic catastrophe or puts life at risk.
Examples include but are not limited to:
Food; pharmaceuticals; aircraft; shipbuilding; load bearing components and structures; complex construction activity; electrical and gas equipment; medical and health services; fishing; nuclear fuel; chemicals, chemical products and fibers.
- Medium risk :**
Where failure of the product or service could cause injury or illness.
Examples include but are not limited to:
Non load bearing components and structures; simple construction activities; basic metals and fabricated products; non-metallic products; furniture; optical equipment; leisure and personal services.
- Low risk :**
Where failure of the product or service is unlikely to cause injury or illness. Examples include but are not limited to:
Textiles and clothing; pulp, paper and paper products; publishing; office services; education; retailing, hotels and restaurants.

Complexity Categories of Environmental Aspects

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The provisions specified in this document are based on five primary complexity categories of the nature and gravity of the environmental aspects of an organization that fundamentally affect the audit time. These are:

High – environmental aspects with significant nature and gravity (typically manufacturing or processing type organizations with significant impacts in several of the environmental aspects);

Medium – environmental aspects with medium nature and gravity (typically manufacturing organizations with significant impacts in some of the environmental aspects);

Low – environmental aspects with low nature and gravity (typically organizations of an assembly type environment with few significant aspects);

Limited – environmental aspects with limited nature and gravity (typically organizations of an office type environment);

Special – these require additional and unique consideration at the audit planning stage.

Table EMS 1 does not cover the "special complexity" category and the audit time of management systems audits shall be developed and justified on an individual basis in these cases.

Complexity Categories of OH&S Risks 

The provisions specified in this document are based on three primary complexity categories of OH&S risks based on the nature and severity of the OH&S risks of an organization that fundamentally affect the auditor time. These are:

- High – OH&S risks with significant nature and severity (typically the construction industry, heavy manufacturing or processing type organizations),
- Medium – OH&S risks with medium nature and severity (typically light manufacturing organizations with some significant risks), and
- Low – OH&S risks with low nature and severity (typically office based organizations).

The CAB should recognize that not all organizations in a specific sector will always fall in the same OH&S risk category. The CAB should allow flexibility in its contract review procedure to ensure that the specific activities of the organization are considered in determining the complexity categories of OH&S risks.

Thank you! 