

Occupational Health and Safety Management System Audit Program

NIST S 7101.14

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1. PURPOSE

The purpose of this program is to establish requirements and associated roles and responsibilities for performing audits of the NIST Occupational Health and Safety Management System (OHSMS).

2. BACKGROUND

There are many benefits to NIST establishing an OHSMS, including, but not limited to:

- Improving NIST's occupational safety and health (OSH) performance, *e.g.*, reducing injuries and illnesses;
- Demonstrating NIST's commitment to the safety and health of its staff; and
- Ensuring compliance with safety-related federal regulations and other adopted requirements.

The overall objective is to better control OSH risks and hazards to result in safer work practices for NIST staff and safer workplace environments for all who work at or visit NIST.

Auditing the OHSMS is critical to ensuring continual improvement of how NIST manages safety and intended outcomes of the system are met. Through regular assessments of OHSMS components against the following regulations, requirements, and standards:

- ISO 45001;
- Federal regulations (*e.g.*, 29 CFR 1904, 29 CFR 1910, 29 CFR 1926, 29 CFR 1960);
- Adopted industry standards (*e.g.*, NFPA 70E); and
- Other NIST-specific safety requirements,

NIST can proactively identify gaps, weaknesses, and opportunities to improve. Further, as part of Management Review, NIST senior leaders will have the opportunity to regularly evaluate the suitability, adequacy, and effectiveness of the OHSMS (through review of audit results and associated corrective and improvement actions) and make changes as necessary.

¹ Revision history is provided in Appendix A.

37 **3. APPLICABILITY**

- 38 a. This suborder applies to NIST-conducted audits of all NIST locations, operations, activities,
39 products, and services performed by NIST employees and covered associates as specified in
40 the scope of the OHSMS (see NIST O 7101.00).
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42 b. This suborder does not apply to audits of the NIST OHSMS exclusively conducted by an
43 external party.
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46 **4. REFERENCES**

- 47 a. 29 Code of Federal Regulations (CFR) 1904: [Recording and Reporting of Occupational](#)
48 [Injuries and Illnesses](#)
49
50 b. 29 CFR 1910: [Occupational Safety and Health Standards](#)
51
52 c. 29 CFR 1926: [Safety and Health Regulations for Construction](#)
53
54 d. 29 CFR 1960: [Basic Program Elements for Federal Employee Occupational Health and](#)
55 [Safety Programs and Related Matters](#)
56
57 e. ISO 45001:2018 Occupational Health and Safety Management Systems – Requirements with
58 Guidance for Use
59
60 f. ISO 19011:2018 Guidelines for Auditing Management Systems
61
62 g. National Fire Protection Association (NFPA) 70E: Standard for Electrical Safety in the
63 Workplace
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66 **5. APPLICABLE NIST DIRECTIVES**

- 67 a. NIST Policy (P) 7100.00: [Occupational Safety and Health](#)
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69 b. NIST Order (O) 7101.00: [Occupational Safety and Health Management System](#)
70
71 c. NIST Suborder (S) 7101.13: *Measuring Monitoring, Analyzing and Evaluating the OHSMS*
72 *(under development)*
73
74 d. NIST S 7101.15: [Document and Records Control](#)
75
76 e. NIST S 7101.27: *Corrective and Improvement Action Process*

- f. NIST Procedure (PR) 7101.00: [*Procedure for Requesting Safety-Related Variances and Waivers*](#)
- g. NIST PR 7101.01: [*Management Review Process*](#)
- h. NIST PR 7101.13: *Conducting Analysis and Evaluation of OHSMS and Performance Data (under development)*
- i. NIST PR 7101.14: *Conducting NIST OHSMS Audits*

6. REQUIREMENTS

a. OHSMS Audit Cycle and Audit Schedule

(1) The NIST OHSMS shall be fully audited within a three-year audit cycle.

(a) The audit cycle shall start at the beginning of a fiscal year.

(b) The goal of the audit cycle shall be to provide information on whether the OHSMS:

i. Conforms to the requirements of:

(i) ISO 45001; and

(ii) NIST (e.g., federal regulations, regulations of adopted industry codes and standards, and NIST-specific requirements); and

ii. Is effectively implemented and maintained.

(2) The OHSMS Audit Program Manager shall develop a three-year audit schedule to ensure the full NIST OHSMS will be assessed within each audit cycle.

(a) The audit schedule shall take into consideration identified OSH risks from any source (e.g., monitoring and measurement information, incident data, results of previous audits, complaints from regulatory agencies).

(b) The audit schedule shall consist of multiple limited-scope audits.

(c) The audit schedule shall:

i. Specify:

(i) Number of limited-scope audits for the given audit cycle;

(ii) Objective(s) of each limited-scope audit; and

(iii) Scope of each limited-scope audit; and

ii. Assess:

(i) Parts of the OHSMS; and

(ii) Specific areas of NIST operations (*e.g.*, research activities, internally-provided NIST services, campuses, safety programs).

(3) The audit schedule shall be reviewed and approved by the Chief Safety Officer (CSO).

(a) The CSO should consult with the Executive Safety Committee (ESC) regarding the audit schedule.

(b) Prior to approving the audit schedule, the CSO shall ask for concurrence with it by the ESC at the Management Review meeting at the start of the audit cycle.

(c) The audit schedule shall be posted on the OHSMS Audit Program webpage.

(4) The approved audit schedule may be revised at any time to reflect changes in NIST OSH risks or priorities.

(a) The CSO shall notify the ESC of any changes to the approved audit schedule prior to the changes being implemented.

(5) In addition to the audits conducted as part of the approved audit schedule, the CSO may direct the OHSMS Audit Program Manager to conduct unscheduled, limited-scope audits.

(a) The CSO should consult with the ESC regarding the unscheduled, limited-scope audit, but shall not be required to obtain the concurrence of the ESC prior to approving the audit objective(s) and scope.

(b) The unscheduled, limited-scope audit shall be conducted in accordance with the requirements of Sections 6.b through 6.e of this suborder.

b. Conduct of OHSMS Audits

(1) OHSMS audits shall be conducted by a competent auditing team.

(a) The Lead Auditor shall be:

- i. A NIST employee; or
- ii. Contractor.

(i) If the Lead Auditor is a contractor, at least one NIST employee shall participate in the audit as a competent Team Auditor.

(b) The audit team:

i. Shall collectively have knowledge of:

(i) The NIST OHSMS (including relevant federal regulations, industry codes, and industry standards);

(ii) ISO 45001;

(iii) ISO 19011;

(iv) Basic OSH risk management processes; and

(v) NIST activities and operations.

ii. Should include other competent Team Auditors; and

iii. Should, as necessary, avail themselves of subject matter experts (SMEs), *e.g.*, those familiar with a particular process, activity, or hazard, as resources.

(c) To the extent possible, the OHSMS Audit Program Manager should ensure objectivity and impartiality of the audit process through:

- i. Selecting appropriate Lead Auditors, Team Auditors, and SMEs; and
- ii. Monitoring the conduct of audits.

(2) OHSMS audits shall be conducted in accordance with NIST PR 7101.14.

(a) The CSO may approve the use of an alternate procedure² provided it:

i. Mostly conforms to ISO 19011; and

ii. Meets the intent of this suborder.

(b) For each limited scope OHSMS audit, the following shall be documented as part of the audit plan:

i. Organizational Units (OUs) being audited;

ii. Audit dates;

iii. Audit objective(s);

iv. Audit scope;

v. Audit criteria;

vi. Audit team members;

vii. Schedule of audit activities (*e.g.*, opening/closing meetings, staff interviews, work observations) including dates, anticipated start time, and duration of activities;

viii. List of required documents and records for review, *e.g.*, inspection records, incident reports, other documentation demonstrating conformity, reports from previous audits, resolution of findings, training records, hazard reviews;

ix. Audit report distribution list; and

x. Any other relevant information.

(3) Per the approved audit schedule for a given audit cycle, relevant OU Directors and OU line managers shall make OU staff available to participate in audit activities as necessary (*e.g.*, assisting with planning audit activities in the OU, providing appropriate

² The OHSMS Audit Program Manager shall submit a waiver to the CSO per NIST PR 7101.00.

documentation, participating in interviews, allowing for safe observation of work activities).

(4) OHSMS audit reports shall be documented with the following information:

(a) Audit plan, per Section 6.b(2)(b);

(b) Summary of audit method(s);

(c) Statement regarding achievement of audit objective(s), *e.g.*, was it achieved, areas not able to be audited for a given reason;

(d) Summary of findings (*e.g.*, conformities, nonconformities, opportunities for improvement, best practices);

(e) Unresolved diverging opinions between the audit team and the OUs being audited;

(f) Auditor comments;

(g) Audit conclusions;

(h) Any other relevant information;

(i) Signature of Lead Auditor;

(j) Signature of the CSO (as the NIST representative accepting the audit report); and

(k) Issue date of report.

(5) After finalizing each individual OHSMS audit report, the report shall be:

(a) Communicated to interested parties; and

(b) Posted online on the OHSMS Audit Program webpage.

(6) At the conclusion of the audit cycle, the OHSMS Audit Program Manager shall provide a summary report of the NIST OHSMS, based upon the results of the individual audit reports for a given audit cycle, and assess the goal of the OHSMS Audit Program as specified in Section 6.a(1)(b).

(a) The summary report for the audit cycle shall be:

i. Communicated to interested parties; and

ii. Posted online on the OHSMS Audit Program webpage.

c. Managing OHSMS Audit Findings

(1) All nonconformities found during the OHSMS audits shall be addressed in accordance with the requirements of NIST S 7101.27.

(a) Nonconformities shall be prioritized and addressed according to the type and relative severity of issues identified.

(b) A competent Auditor (Lead or Team) shall assess the effectiveness of the completed corrective action either before or during the next audit of the audit schedule.

(2) If determined appropriate by the CSO, and in consultation with the ESC, opportunities for improvement shall be addressed according to the process described in NIST S 7101.27 for improvement actions.

(3) The Program Manager for Monitoring, Measurement, Analysis and Evaluation (NIST S 7101.13) shall regularly review the findings of OHSMS audits, either individually or collectively over the audit cycle(s), and the audit cycle reports to determine if a finding may require escalation according to requirements of NIST PR 7101.13.

(4) Findings from OHSMS audits and audit cycle summary reports, as well as the status of actions taken to address audit findings, shall be included as inputs to Management Reviews, please see NIST PR 7101.01.

d. Training

(1) Training shall be conducted and recorded in accordance with the requirements of the NIST S 7101.23

(2) Team Auditors shall be considered competent after successfully completing:

(a) NIST General Safety Awareness Training;

(b) NIST Safety Leadership Training;

(c) Training on this suborder;

(d) An introductory course on ISO 45001; and

(e) An introductory course on ISO auditing (*e.g.*, ISO 19011).

(3) Lead Auditors shall be considered competent after:

(a) Successfully completing training required of Team Auditors, please see Section 6.d(2);

(b) Holding an ISO 45001 Lead Auditor Certificate from a reputable, external training organization; and

(c) Participating as a lead auditor-in-training for an OHSMS audit under the supervision of an experienced lead auditor.

(4) SMEs participating in OHSMS audits shall be considered competent after:

(a) Successfully completing:

i. NIST General Safety Awareness Training;

ii. Training on this suborder;

iii. NIST-level safety training on hazards associated with their area(s) of expertise; and

iv. NIST Safety Leadership Training (recommended, but not required).

(5) Refresher training for Team Auditors and Lead Auditors shall be required when:

(a) There are changes to the training identified in Sections 6.d(2)(a) – (c);

(b) There are significant changes to relevant ISO standards, *i.e.*, 19011 or 45001; and

(c) Results of audit or auditor performance assessments indicates a deficiency in competency.

e. Records Required by this Program

(1) The approved audit schedule, and any updates to it, shall be retained as a record in the Document and Record Center in accordance with NIST S 7101.15.

(2) Final OHSMS audit reports and audit cycle summary reports shall be retained as a record in the Document and Record Center.

(3) Required corrective actions and improvement actions, as determined necessary, shall be documented and recorded in accordance with the requirements of NIST S 7101.27.

f. OHSMS Audit Program Review

(1) The OHSMS Audit Program shall be reviewed and evaluated annually for ongoing suitability, adequacy, and effectiveness as part of the OHSMS audit cycle through the following activities:

(a) Review of this suborder;

(b) Review of the associated procedure (NIST PR 7101.14); and

(c) Observation of Lead Auditors and Team Auditors as they conduct audit activities.

(2) Where applicable, corrective or improvement actions shall be implemented in accordance with NIST S 7101.27.

7. DEFINITIONS

Definitions common to all NIST OSH suborders can be found in Section 6 of NIST O 7101.00. The definitions specific to this suborder are as follows:

a. Audit – Systematic, independent, and documented process for obtaining objective evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled. (Source: ISO 19011:2018)

b. Audit Criteria – Set of requirements used as a reference against which objective evidence is compared. (Source: ISO 19011:2018)

c. Audit Conclusion – Outcome of an audit, after consideration of the audit objectives and audit findings. (Source: ISO 19011:2018)

- d. Audit Cycle – The three-year period over which the NIST OHSMS is assessed for conformity to established requirements and determined whether it is effectively implemented and maintained.
- e. Audit Evidence – Records, statements of fact, or other information, which are relevant to the audit criteria and verifiable. (Source: ISO 19011:2018)
- f. Audit Finding – Result of the evaluation of the collected audit evidence against audit criteria; audit findings can be positive or negative. (Source: ISO 19011:2018)
- g. Audit Objective – The purpose of the audit. (Source: ISO 19011:2018)
- h. Audit Plan – Documented description of the activities and arrangements for an audit. (Source: ISO 19011:2018)
- i. Audit Schedule – The list of planned audits for a given audit cycle.
- j. Audit Scope – Extent and boundaries of an audit. (Source: ISO 19011:2018)
- k. Audit Team – One or more persons conducting an audit, supported if needed by subject matter experts. (Source: ISO 19011:2018)
- l. Auditor – Person who conducts an audit. (Source: ISO 19011:2018)
- m. Best Practice – Verified fulfillment of audit criteria, with results exceeding requirements and showing exceptional risk management.
- n. Competence – Ability to apply knowledge and skills to achieve intended results. (Source: ISO 19011:2018)
- o. Compliance – Fulfillment of a legal or regulatory (legislated) requirement.
- p. Conformity (or Conformance) – Fulfillment of a requirement. (Source: ISO 19011: 2018)
- q. Continual Improvement – Recurring activity to enhance performance. (Source: ISO 45001: 2018)
- r. Corrective Action – Action to eliminate the cause(s) of a nonconformity or an incident and to prevent recurrence.

- 435 s. Effectiveness – Extent to which planned activities are realized and planned results achieved.
436 (Source: ISO 45001: 2018)
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- 438 t. Hazard – Source with a potential to cause injury and ill health. (Source: ISO 45001: 2018)
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- 440 u. Injury and Ill Health – Adverse effect on physical, mental, or cognitive condition of a person.
441 (Source: ISO 45001: 2018)
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- 443 v. Interested Party – Person or organization that can affect, be affected by, or perceive itself to
444 be affected by a decision or activity. (Source: ISO 45001: 2018) Examples at NIST include
445 NIST Director, NIST Senior Leaders, CSO, audited OU line managers and staff, and union
446 representatives, as applicable.
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- 448 w. Lead Auditor – Person who manages audits and leads an audit team.
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- 450 x. Limited Scope Audit – An audit that focuses on a specific, identified area of the OHSMS
451 rather than conducting a comprehensive review of all aspects. These types of audits allow
452 for a more targeted assessment of a particular concern or area needing improvement within
453 the OHSMS.
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- 455 y. Management System – Set of interrelated or interacting elements of an organization to
456 establish policies and objectives and processes to achieve those objectives. (Source: ISO
457 45001: 2018)
458
- 459 z. Nonconformity (or Nonconformance) – Nonfulfillment of a requirement. (Source: ISO
460 45001: 2018)
461
- 462 aa. Objective Evidence – Data supporting the existence or verity of something and can be
463 obtained through observation, measurement, interviews with people, measurement, or by
464 other means. (Source: ISO 19011:2018)
465
- 466 bb. Occupational Health and Safety Management System (OHSMS) – Management system or
467 part of a management system used to achieve the OSH Policy. (Source: ISO 45001: 2018)
468
- 469 cc. OSH Objective(s) – Result(s) set by an organization to achieve particular outcomes
470 consistent with the OSH Policy. (Source: ISO 45001: 2018)
471
- 472 dd. OSH Risk – Combination of the likelihood of occurrence of a work-related hazardous
473 event(s) or exposure(s) and the severity of injury and ill health that can be caused by the
474 event(s) or exposure(s). (Source: ISO 45001: 2018)

- ee. OSH Performance – Measurable result(s) related to the effectiveness of the prevention of injury and ill health to workers and the provision of safe and healthy workplaces. (Source: ISO 45001: 2018)
- ff. Opportunity for Improvement – Verified fulfillment of audit criteria, but circumstances or set of circumstances can lead to improvement of performance.
- gg. Process – Set of interrelated or interacting activities that use inputs to deliver an intended result. (Source: ISO 45001: 2018)
- hh. Subject Matter Expert (SME) – Person who provides specific technical knowledge or expertise to an audit team. (Source: ISO 19011: 2018)
- ii. Team Auditor – Person who performs audit tasks. (Source: ISO 19011:2018)

8. ACRONYMS

- a. CFR – Code of Federal Regulations
- b. CSO – Chief Safety Officer
- c. ESC – Executive Safety Committee
- d. ISO – International Organization for Standardization
- e. MS – Management System
- f. NFPA – National Fire Protection Association
- g. OHS or OSH – Occupational Health and Safety or Occupational Safety and Health; they are interchangeable.
- h. OHSMS – Occupational Health and Safety Management System
- i. SME – Subject Matter Expert

9. ROLES AND RESPONSIBILITIES

a. The CSO is responsible for:

(1) Ensuring overall implementation of this Suborder, including carrying out specific duties established herein and in NIST PR 7101.14; and

(2) Ensuring resources are available to support the conduct of effective OHSMS audits.

b. The ESC is responsible for:

(1) Consulting on the OHSMS audit schedule, as requested by the CSO; and

(2) Providing concurrence or non-concurrence on the OHSMS audit schedule prior to the CSO approving it.

c. OU Directors are responsible for ensuring OU line management and staff cooperate with auditors and participate in OHSMS audit activities as requested.

d. The OHSMS Audit Program Manager is responsible for:

(1) Facilitating implementation, maintenance, and improvement of the OHSMS audit program and functions;

(2) Conducting OHSMS audit planning activities, including development of the audit schedule;

(3) Selecting appropriate Lead Auditors, Team Auditors, and SMEs, as necessary, for each audit;

(4) Carrying out the responsibilities identified in NIST PR 7101.14;

(5) Participating on an audit team as Lead Auditor or Team Auditor as long as their participation does not adversely impact the impartiality or independence of the audit team;

(6) Overseeing the conduct of OHSMS audits to ensure their quality;

(7) Preparing the audit cycle summary report; and

(8) Arranging for auditor training and refresher training, as necessary.

- e. The Lead Auditor is responsible for carrying out the responsibilities identified in NIST PR 7101.14, including, but not limited to:
- (1) Managing the audit team and serving as the primary point of contact for the audit team and the OUs being audited during all phases of an OHSMS audit;
 - (2) Preparing, planning, and conducting an OHSMS audit (*e.g.*, managing the audit process, facilitating meetings, assigning work to auditors);
 - (3) Preparing OHSMS audit reports, with the support of Team Auditors; and
 - (4) Supporting follow-up actions (*e.g.*, corrective action plan development review and review of effectiveness of corrective action).
- f. A Team Auditor is responsible for:
- (1) Supporting the Lead Auditor in the planning and preparation of the audit; and
 - (2) Performing audit tasks as assigned (*e.g.*, review relevant documented information, interview personnel, observe operations/activities, document evidence and findings, support report preparation).
- g. A Subject Matter Expert is responsible for:
- (1) Serving as supplemental information resource regarding specific and/or specialized NIST activities and operations associated with higher ranked OSH risks and hazards;
 - (2) Providing specific knowledge or expertise to audit teams;
 - (3) Participating in the OHSMS audits as a “consultant” to audit teams to ensure audit scope and objective(s) are achieved adequately and effectively.
- h. NIST Employees and Covered Associates participating in an OHSMS audit are responsible for cooperating with auditors and providing honest and complete responses when interviewed.

10. AUTHORITIES

There are no authorities specific to this suborder alone. For authorities applicable to all NIST OSH suborders, see Section 9 of NIST O 7101.00.

595 **11. DIRECTIVE OWNER**

596 Chief Safety Officer

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599 **12. APPENDICES**

600 Appendix A – Revision History

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Appendix A: Revision History

Version No.	Approval Date	Effective Date	Brief Description of Change; Rationale
1	06/06/2025	6/06/2025	None – Initial document