



Standard Practice for Environmental Regulatory Compliance Audits¹

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1. Scope

1.1 *Purpose*—This practice² identifies minimum requirements for environmental regulatory compliance audits (audits). It also provides information on the terms and procedures associated with audits as practiced in the United States of America (USA) and other jurisdictions subject to the laws thereof. It provides a reference to which interested parties may refer for definition and description of accepted audit terms and procedures.

1.2 Background:

1.2.1 *Awareness of Benefits Associated with Audits*—Various benefits have been attributed to audits. These benefits may include a better understanding of the compliance status of a facility or organization, identification of opportunities for environmental management systems improvements, reduction or elimination of potential legal and financial liabilities when implemented as part of a comprehensive compliance management program, better communications and improved relationships with governmental agencies, communities, and other stakeholders, providing information for development of both short-term and long-term environmental expenditures, and education of employees.

1.2.2 *Awareness of Risks Associated with Audits*—It is also important to recognize that certain risks have been associated with audits. These risks may be managed and controlled by giving thoughtful consideration to the audit process before beginning an audit. These risks may include increased potential legal and financial liabilities for the audited entity if audit findings are not corrected in a timely manner, disclosure of confidential business information or trade secrets, inadvertent admissions against interest because of the wording of audit findings, disclosure of audit findings intended to be kept confidential under audit privilege laws or attorney - client

privilege or work product doctrine, and inaccurate audit findings.

1.2.3 *Awareness of Legal Issues*—A number of important legal issues are associated with audits. Example legal issues include the qualification for one or more evidentiary privileges, the qualification for limited immunity, the protection of trade secrets and confidential information, the application of a number of government policies associated with environmental audits (including federal and state programs that provide incentives for detecting, disclosing, and correcting potential violations through auditing), the form and language of audit reports, the necessity of reporting certain information to the government, the potential liability of auditors, and the importance of promptly addressing issues identified during audits. Prior to initiating and during an audit, interested parties should consider potential legal issues and consult legal counsel or other experts as appropriate.

1.3 *Organization*—This practice is organized in the following manner:

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2. Referenced Documents

2.1 ASTM Standards:

E 1527 Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process³

E 1528 Practice for Environmental Site Assessments: Transaction Screen Process³

2.2 ISO Standards:

ISO 14010 Guidelines for Environmental Auditing—General Principles⁴

ISO 14011 Guidelines for Environmental Auditing—Audit Procedures—Auditing of Environmental Management Systems⁴

ISO 14012 Guidelines for Environmental Auditing—

¹ This practice is under the jurisdiction of ASTM Committee E50 on Environmental Assessment and is the direct responsibility of Subcommittee E50.05 on Wetland Ecosystems.

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² As used herein, a “Standard” is a document that has been developed and established within the consensus principles of the Society and that meets the approval requirements of ASTM procedures and regulations. A “Guide” is a compendium of information or a series of options that does not recommend a specific course of action. A guide increases the awareness of information and approaches in a given subject area. A “Practice” in contrast, is a definitive set of instructions for performing one or more specific operations that does not produce a test result. See *Form and Style for ASTM Standards*.

³ *Annual Book of ASTM Standards*, Vol 11.04.

⁴ Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.

Qualification Criteria for Environmental Auditors⁴**3. Terminology****3.1 Definitions of Terms Specific to This Standard:**

3.1.1 *action plan*—a plan to address audit findings that describes planned response actions, parties responsible for their execution, and expected completion dates.

3.1.2 *audit authority*—the entity or body that authorizes, or initiates, the audit process. The audit authority may be internal or external to the audited entity.

3.1.3 *audit criteria*—enforceable environmental requirements that are applicable to an audited entity. Examples include laws, regulations, orders, and permits.

3.1.4 *audit data*—information obtained during an audit to support audit findings.

3.1.5 *audit finding*—a statement of audited entity conditions at the time of the audit compared to audit criteria. Audit findings shall be based upon verifiable audit data and may be either positive or negative with respect to audit criteria.

3.1.6 *audit objective(s)*—broad statement(s) of what the audit intends to accomplish.

3.1.7 *audit plan*—documentation that describes the audit. Elements that should be included or referenced in the audit plan are: the audit objective; audit scope; identities of the auditing entity, audit team, and audit authority; audit schedule; auditor health and safety issues; audit report preparation; record retention and management requirements; logistics; working papers management; a process for promptly communicating auditor concerns for potential environmental or regulatory impact including concerns requiring further evaluation; special conditions or requirements; and whatever measures, if any, desired to maximize audit confidentiality.

3.1.8 *audit purpose*—reason for the audit.

3.1.9 *audit protocol*—a list of issues or questions designed to address the audit objective(s) based upon audit criteria.

3.1.10 *audit report*—a written summary of audit findings that is objective, clear, concise, constructive and timely.

3.1.11 *audit scope*—a description of what is to be audited. The audit scope shall include a description of the period under review, the audited entity, and the audit criteria.

3.1.12 *audit team*—one or more auditors responsible for conducting an audit. The audit team may be supported by technical experts and auditors-in-training.

3.1.13 *audited entity*—a facility, organization, or part thereof, that is the subject of an audit.

3.1.14 *auditing entity*—the organization that provides auditors.

3.1.15 *auditor*—a person qualified to conduct an audit.

3.1.16 *environmental regulatory compliance audit (audit)*—a systematic, documented, and objective review of an audited entity to evaluate its compliance status relative to audit criteria

3.1.17 *independence*—a condition characterized by organizational standing where an auditor is free to conduct an audit without being controlled or influenced by others.

3.1.18 *lead auditor*—an auditor designated to lead and manage the audit.

3.1.19 *objectivity*—a condition characterized by the absence of bias, influences, and conflicts of interest that affect or have

the potential to compromise audit findings.

3.1.20 *open issues*—potential audit findings that cannot be verified or resolved without additional information.

3.1.21 *period under review*—the time interval over which conditions at the audited entity are evaluated against audit criteria.

3.1.22 *physical inspection*—first hand observation and assessment of audited entity conditions.

3.1.23 *records*—documentation and other forms of recorded information.

3.1.24 *regulatory entities*—organizations that have the legal authority to develop, implement, administer, or enforce audit criteria. For example, federal, state, tribal, or local government.

3.1.25 *working papers*—paper and electronic documentation developed by an auditor from observations, record reviews, and interviews during an audit.

4. Significance and Use

4.1 *Intended Use*—This practice is intended for use by parties who wish to perform or direct an audit, or rely upon audit findings or an audit report. Such use includes audits by internal and external auditors.

4.2 *Other Audit Criteria*—Other audit criteria may be included in the audit scope if specified in the audit plan. Examples include safety and health requirements, and technical, operational, and management requirements.

4.3 *Related ASTM Standards*—This practice is related to Practices E 1527 and E 1528 for environmental site assessments. A number of terms and procedures from these practices are similar to terms and procedures associated with this practice but they may not be the same.

4.3.1 *Not Interchangeable*—Although related to Practices E 1527 and E 1528, this practice is designed to achieve different results. Therefore, these practices shall not be used interchangeably with, or in place of, this practice.

4.4 *Related ISO Guidelines*—The International Organization for Standardization (ISO) has developed guidelines addressing environmental auditing. These are ISO 14010, ISO 14011, and ISO 14012. A number of terms and procedures from these guidelines may be similar to terms and procedures associated with this practice but they may not be the same.

4.4.1 *Not Interchangeable*—Although related to ISO guidelines, this practice is designed for a different purpose. Therefore, these ISO guidelines shall not be used interchangeably with, or in place of, this practice.

4.5 *Additional Services*—A number of issues may arise as a result of an audit, but are outside the scope of this practice. Such issues include, but are not limited to, development of action plans and cost estimates to address audit findings.

4.6 *Conditions*—The following conditions shall govern the application of this practice.

4.6.1 *Not Exhaustive*—A audit shall not constitute an exhaustive review of audited entity compliance with all potentially applicable audit criteria unless explicitly intended and stated as an audit objective in the audit plan.

4.6.2 *Level of Review is Variable*—The audit scope may vary to meet different audit objectives. For example, the audit scope may include only selected audit criteria, selected period under review, or selected portions of a facility or organization.



4.6.3 Continued Viability of Environmental Audit—An audit completed in accordance with this practice shall be valid for only the period under review. Because audit criteria and audited entity conditions may change over time, it shall not be assumed that an audit report is reliable, or has continued viability, for other than the period under review.

4.6.4 Usage of Prior Audits—Information contained within reports from prior audits should be used only if it has continued viability and if use of that information is appropriate.

5. Responsibilities

5.1 Audit Authority Responsibilities—The audit authority shall:

- 5.1.1 Determine the need for an audit;
- 5.1.2 Specify or approve the audit purpose;
- 5.1.3 Select the auditing entity and/or lead auditor; and
- 5.1.4 Support the audit process.

5.2 Lead Auditor Responsibilities—The lead auditor shall ensure the efficient and effective completion of an audit. To do this the lead auditor shall work through the auditing entity to:

- 5.2.1 Develop, with the audit authority, an audit plan;
- 5.2.2 Gather appropriate audited entity background information;
- 5.2.3 Assemble a qualified audit team;
- 5.2.4 Communicate with the audited entity regarding audit plan issues. For example, schedule, logistics, access, availability of audited entity staff to interview, operating conditions, audit team needs, and health and safety precautions;
- 5.2.5 Manage the audit team;
- 5.2.6 Serve as the primary point of communication between the audit team and any other entity regarding the audit plan, audit findings, and audit reports;
- 5.2.7 Seek to prevent and resolve problems that could affect audit quality and timeliness;
- 5.2.8 Ensure the audit is conducted in accordance with this practice;
- 5.2.9 Notify the audit authority of conditions that may prevent audit completion in accordance with the audit plan; and
- 5.2.10 Prepare an audit report.

5.3 Auditor Responsibilities—Auditors shall support the lead auditor in completing an audit. To do this, auditors shall:

- 5.3.1 Understand the audit plan and their individual area of responsibility;
- 5.3.2 Follow lead auditor direction;
- 5.3.3 Review audit criteria and any protocols to be used, and establish a personal work plan for assigned areas of responsibility;
- 5.3.4 Collect sufficient relevant audit data to support audit findings;
- 5.3.5 Develop and document audit findings;
- 5.3.6 Assist in preparing audit reports; and
- 5.3.7 Maintain audit data and documentation in a secure manner.
- 5.3.8 Disclose issues to the auditing entity that may compromise objectivity.

5.4 Audited Entity Responsibilities—The audited entity shall:

- 5.4.1 Ensure that the audit is supported, including cooperating with the auditors to ensure that audit objectives are met;

- 5.4.2 Provide the auditing entity with requested background information in a timely manner;

- 5.4.3 Ensure audit team safe, timely and complete access;

- 5.4.4 Inform audit team of relevant health and safety requirements and practices;

- 5.4.5 Provide audit team, for the duration of the audit, with secure and reasonable support needs;

- 5.4.6 Provide the audit team with facility escorts knowledgeable of audited entity operations, to accompany auditors on physical inspections;

- 5.4.7 Assist auditor in identifying pertinent personnel and in scheduling interviews;

- 5.4.8 Ensure audit team access to documents needed to develop audit findings;

- 5.4.9 Ensure those facilities and operations audited accurately represent normal and known abnormal conditions;

- 5.4.10 Inform audit team of abnormal conditions;

- 5.4.11 As specified in the audit plan, evaluate and retain audit reports and determine appropriate follow-up activities;

- 5.4.12 Take measures to ensure that the audit team is provided with accurate and complete answers to questions;

- 5.4.13 Promptly notify the audit team if it disagrees with an audit finding;

- 5.4.14 If requested, provide comments on draft audit findings; and

5.5 Auditing Entity Responsibilities—The auditing entity shall:

- 5.5.1 Provide qualified auditors,

- 5.5.2 Select, with the audit authority, a lead auditor,

- 5.5.3 Provide a quality assurance and quality control program that may include evaluations of audit procedures, auditor qualifications, auditor effectiveness, and audit reports,

- 5.5.4 Support auditors and the auditing function with including management of audit data, audit findings, and audit reports in a responsible manner, and

- 5.5.5 Disclose to the audit authority, issues that compromise auditor objectivity.

6. Auditor Qualifications and Staffing

6.1 Auditor qualifications include competence, objectivity and independence.

6.2 Competence:

6.2.1 An auditor shall conduct an audit with the care, diligence, skill, and judgment expected of any auditor in similar circumstances.

6.2.2 An auditor shall have a working knowledge of the provisions of this practice and audit criteria relevant to his or her area of audit responsibility.

6.3 Objectivity:

6.3.1 Auditors shall disclose actual or potential issues compromising objectivity.

6.3.2 The auditing entity shall disclose actual or potential issues compromising objectivity.

6.4 Independence—Auditors should be independent of the audited entity.

6.5 Audit Team Staffing—The audit team shall collectively be able to implement the audit plan. The following shall be considered in assembling an audit team.

- 6.5.1 Knowledge of audited entity operations;

- 6.5.2 Knowledge of audit criteria;
 - 6.5.3 Experience in auditing;
 - 6.5.4 Workload;
 - 6.5.5 Communication, technical, language, or other skills needed;
 - 6.5.6 Knowledge of this practice;
 - 6.5.7 Ability to remain objective;
 - 6.5.8 Ability to manage confidential business information;
- and
- 6.5.9 Other audit authority requirements.

7. The Audit Process

7.1 There are three steps to an audit. These are: pre-visit activities conducted prior to and in preparation for the site visit; site-visit activities conducted while an auditor is present at the audited entity and; post-visit activities that take place after the site-visit.

7.1.1 Pre-visit activities shall address the following:

7.1.1.1 *Audit Scope*—The audit scope shall be developed and documented.

7.1.1.2 *Audit Criteria*—The audit criteria shall be defined and documented.

7.1.1.3 *Audit Plan*—The audit plan shall be developed and documented.

7.1.1.4 *Schedule*—A schedule of audit activities shall be developed and documented. Issues such as scheduling a site orientation meeting, identifying site contacts, scheduling dates of the site visit, and resolution of logistical issues such as lodging and transportation, should be addressed.

7.1.1.5 *Background Information*—Background information shall be used to develop an audit plan or refine an existing audit plan. Background information may consist of records, process and site descriptions, operation and maintenance manuals, emergency plans, environmental manuals, compliance inspection reports, previous audit reports, environmental site assessment reports, environmental permits, environmental citations, notices of violations and other relevant information.

7.2 Site-visit activities shall address the following:

7.2.1 *Opening Conference*—An opening conference should be held, bringing together the audit team and appropriate members of the audited entity staff or audit authority, or both, to confirm the audit plan and scope. The meeting should facilitate the later gathering of information by the audit team and encourage discussion of any questions or concerns. The audited entity should provide an overview of the facility operations for the audit team during the opening conference.

7.2.2 *Gathering Audit Data*—Audit data shall be gathered and evaluated by the audit team to support audit findings consistent with the audit objective. The audit team should utilize audit protocols to ensure consistency in gathering audit data.

7.2.2.1 *Physical Inspections*—Physical inspections of the audited entity should be conducted.

7.2.2.2 *Interviews*—Interviews should be conducted to obtain information on audited entity practices and procedures that are subject to audit criteria. Appropriate management staff, employees and, if applicable, contractors, should be interviewed.

7.2.2.3 *Records Review*—Records should be reviewed by

the audit team. Records may include reports submitted to regulatory entities, information on physical conditions of the audited entity, environmental site assessment reports, environmental management system documents, prior audit reports, and records of environmental performance.

7.2.3 *Copying*—Copies of audited entity records may be necessary to support audit findings. Copies are considered audit data.

7.2.4 *Team Meeting(s)*—Meetings of the audit team should be conducted to share information and to ensure timely and consistent completion of the audit.

7.2.5 *Audit Progress Meeting(s)*—Draft audit findings and audit plan issues should be discussed among audit team members prior to the closing conference.

7.2.6 *Closing Conference*—At the conclusion of the site visit, a closing conference should be held to discuss draft audit findings and audit status. The closing conference provides an opportunity for audited entity personnel to discuss and question draft audit findings. Post-visit procedures should be discussed at the closing conference including a process for resolving challenged audit findings and for closing or reporting any open issues.

7.3 Post-visit activities shall address the following:

7.3.1 *Documentation*—Audit protocols should be completed, or explanations provided for open issues, in accordance with the audit plan.

7.3.2 *Finalizing Audit Findings*—Final audit findings shall be based upon the most recent verifiable audit data from the period under review that is available to the audit team.

7.3.3 *Preparing Audit Report*—An audit report shall be prepared that presents audit findings. Audit findings that are corrected during an audit shall be included as audit findings in the audit report.

8. Audit Record Management and Audit Report Preparation

8.1 *Record Keeping*—This section discusses the handling and retention of audit records.

8.1.1 *Record Handling*—The audit plan should identify procedures for handling records.

8.1.2 *Record Management and Retention*—A record management and retention policy should be included in the audit plan.

8.2 *Working Papers*—The following subsections identify specific issues related to working papers.

8.2.1 *Generation*—A system should be employed to facilitate working paper review and protect against tampering.

8.2.2 *Corrections and Revisions*—A system for managing corrections and revisions of working papers should be employed.

8.2.3 *Disposition*—The interim and final disposition of working papers shall be addressed in the audit plan.

8.3 *Audit Report*—The following sections address issues related to development and issuance of an audit report.

8.3.1 *Draft Audit Report*—A draft audit report should be developed for review and comment. Comments on a draft audit report should be made in a timely manner. Reviewers' failure to provide comments shall not prevent issuance of the final audit report.



8.3.2 *Final Audit Report*—A final audit report shall be issued.

9. Keywords

9.1 environmental audit; environmental compliance; environmental management

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