Six Sigma Kaizen

ISO 14001 IMPLEMENTATION HUB

Volume 2 • Guide 3 of 6

Clause 7: Support

Resources, Competence, Awareness, Communication, and Documented Information — The Infrastructure That Makes the EMS Functional

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Clause-by-Clause Practitioner's Guide • ISO 14001:2015

7.1 Resources • 7.2 Competence • 7.3 Awareness • 7.4 Communication • 7.5 Documented Information

How to Use This Guide

This is Guide 2.3 in Volume 2 of the ISO 14001 Implementation Hub. It covers Clause 7 — the support requirements of ISO 14001:2015 — at the analytical depth required to implement, defend, and maintain these elements through the full certification cycle. The support clause encompasses five sub-clauses that together constitute the enabling infrastructure of the EMS: resources, competence, awareness, communication, and documented information. These elements do not create environmental performance directly — they create organizational conditions under which environmental performance can be achieved and sustained.

Clause 7 is where EMS implementation most frequently reveals the gap between form and function. It is relatively straightforward to produce a competence matrix, a training schedule, a communication plan, and a document register. It is considerably more demanding to ensure that the competence matrix reflects current role requirements, that training produces verified competence rather than attendance records, that communication creates genuine environmental understanding rather than policy acknowledgement, and that documented information is maintained as a living system rather than a static archive. This guide addresses the gap between form and function in each Clause 7 element.

Clause 7.1 — Resources

Standard Requirement

ISO 14001:2015, Clause 7.1: "The organization shall determine and provide the resources needed for the establishment, implementation, maintenance and continual improvement of the environmental management system."

Clause 7.1 is brief but consequential. Its primary audit function is not to verify that resources are adequate in some absolute sense — the standard does not specify what "adequate resources" means for any given organization. Its audit function is to verify that the organization has a process for determining what resources the EMS needs and that it actually provides those resources when needed. The two most common Clause 7.1 implementation failures are related but distinct:

- Failure to determine: the organization provides whatever resources the EHS Manager manages to secure on an ad hoc basis, without a systematic determination of what the EMS actually requires. Resource decisions are reactive rather than planned.
- Failure to provide: the organization identifies resource needs in the management review and other EMS processes but does not act on them. Management review minutes show EHS Manager requests for additional monitoring equipment or training budget that receive no documented response — needs identified but not addressed.

What EMS Resources Include

EMS resources include more than budget. The full resource picture for an effective EMS encompasses:

- Personnel time: the EHS Manager's time is the most significant EMS resource at Cascade. If 65% of Marcus Webb's working hours are consumed by permit compliance activities, regulatory correspondence, and hazardous waste management, less than a third of his available time is available for EMS development and maintenance activities. This time allocation is a resource constraint that must be explicitly acknowledged and managed — not assumed to be adequate because the EHS Manager is employed full-time.
- Financial resources: monitoring equipment and its maintenance; internal auditor training; registrar fees; any external consultant support; environmental improvement capital investments (spray equipment upgrades, wastewater treatment improvements) that are required to achieve environmental objectives.
- Infrastructure: the document management system, the calibrated monitoring equipment, the compliance tracking platform, and the emergency response equipment are all EMS infrastructure resources. Inadequate or failing infrastructure creates EMS performance risk regardless of how well procedures are written.
- Knowledge and expertise: in specialized environmental regulatory areas where the EHS Manager's knowledge may not extend — environmental legal counsel for complex regulatory questions, specialist consultants for permit renewal negotiations, laboratory analytical services for monitoring that cannot be conducted in-house.

The Management Review as a Resource Determination Mechanism

ISO 14001:2015 Clause 9.3.3 requires management review outputs to include "decisions related to resource needs." This requirement connects Clause 7.1 and Clause 9.3 explicitly: the management review is the primary mechanism through which the organization determines and approves EMS resource needs. When the management review produces a specific resource decision — approving a capital investment, authorizing additional training, providing the EHS Manager with administrative support for one day per week during audit preparation — it simultaneously satisfies a Clause 9.3.3 output requirement and a Clause 7.1 resource provision requirement. The two clauses are designed to work together.

Registrar auditors verify Clause 7.1 conformance primarily through the management review evidence. They look for: resource needs identified in prior management reviews; specific resource decisions made in response; and evidence that approved resources were actually provided. A management review that identifies a resource need and a subsequent management review that shows the same unaddressed need is a resource provision failure — and a management governance failure simultaneously.

Clause 7.2 — Competence: The Full Assessment Methodology

Standard Requirement

ISO 14001:2015, Clause 7.2: "The organization shall: a) determine the necessary competence of person(s) doing work under its control that affects its environmental performance and its ability to fulfil its compliance obligations; b) ensure that these persons are competent on the basis of appropriate education, training or experience; c) determine training needs associated with its environmental aspects and its environmental management system; d) where applicable, take actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken; e) retain appropriate documented information as evidence of competence. NOTE Applicable actions can include, for example, the provision of training to, the mentoring of, or the reassignment of currently employed persons; or the hiring of or contracting with competent persons."

The Competence Assessment Cycle — Four Connected Steps

ISO 14001:2015 Clause 7.2 describes a four-step competence management cycle. Most organizations implement the first two steps adequately and fail on the third and fourth. Understanding all four steps and their connectivity is essential for building a competence system that functions — not only one that is documented.

Step	What It Requires and Where Organizations Fail
Step 1 (7.2a): Determine necessary competence	Define what each EMS-affecting role must be able to do — not in general educational terms, but in specific task-performance terms. "Understanding of RCRA requirements" is not a competence requirement. "Ability to correctly identify, label, date, and manage satellite hazardous waste accumulation containers per 40 CFR 262.17 requirements without supervision" is a competence requirement. The specificity of the competence definition determines the specificity of the assessment and training that follows. Most organizations under-specify competence requirements, producing a matrix that looks comprehensive but generates generic training.
Step 2 (7.2b): Ensure persons are competent	Verify that the persons in each EMS-affecting role are actually competent — through assessment of their education, demonstrated experience, or training outcomes. The most common failure here is treating training attendance as equivalent to competence. A person who attended a RCRA training course is not demonstrated to be competent in RCRA requirements unless an assessment confirmed that they can apply the training in their specific role. Attendance is a necessary but not sufficient condition for competence.
Step 3 (7.2c,d): Determine training needs and take action	Identify the gaps between required competence (Step 1) and current competence (Step 2) and design training or other actions to close them. The "other actions" note in the standard is important: training is not always the right response to a competence gap. Sometimes the right response is role reassignment (moving a person who cannot achieve the required competence to a different role); sometimes it is contracting (engaging an external specialist for activities that require competence the organization does not have internally); sometimes it is process redesign (eliminating the need for the difficult-to-achieve competence by redesigning the process).

Step	What It Requires and Where Organizations Fail
Step 4 (7.2d): Evaluate effectiveness of actions taken	Determine whether the actions taken in Step 3 produced the required competence. This step is the one most consistently absent from EMS competence programs. Organizations close the gap between "training needed" and "training conducted" but do not verify that the training produced competence. The effectiveness evaluation answers the question: "After the training, is the person now competent?" — not "Did they attend the training?"

Competence Evidence: What "Documented Information as Evidence of Competence" Requires

Clause 7.2(e) requires the organization to retain "appropriate documented information as evidence of competence." The word "appropriate" is doing significant work here: the type and extent of documentation should be proportionate to the significance of the competence being demonstrated. Two categories of competence evidence, each appropriate for different situations:

Evidence Category	When Appropriate and What It Must Show
Qualification and certification records	Appropriate for roles requiring formal professional qualifications: the EHS Manager's CHMM certification is evidence of competence in hazardous materials management; an engineer's PE license is evidence of professional engineering competence. Documents retained: certificate with certification number, issuing body, and expiration date; proof of renewal for time-limited certifications. Critical: certification expiration must be tracked and renewal completed before expiry to maintain the competence evidence.
Training completion with assessment results	Appropriate for role-specific environmental competence developed through training: the coating operator's competence in VOC emission log completion; the pre-treatment technician's competence in wastewater monitoring. Documents retained: training record showing content covered; assessment results (written test score, practical observation outcome) demonstrating that the training produced the specific competence; supervisor sign-off confirming observed competent performance in the role. Critical: assessment results, not attendance alone.
Experience documentation	Appropriate for competence claimed on the basis of prior work experience rather than formal training: a maintenance technician who has managed hazardous waste satellite accumulation areas for eight years. Documents retained: role history or job description confirming relevant experience; supervisor attestation of competent performance over the relevant period; any periodic performance evaluation records confirming environmental responsibility performance. Critical: experience must be verified, not self-reported only.
Continuing competence records	Required to demonstrate that competence once established has been maintained. Appropriate for all significant EMS competence: annual competence refresher completion; re-assessment after procedure changes; re-certification for time-limited qualifications.

Evidence Category	When Appropriate and What It Must Show
	Documents retained: annual refresher training record; updated assessment results after procedure revision; recertification documentation for expiring credentials. Critical: this is the element most frequently missing from post-certification EMS competence documentation.

Regulatory Competence Obligations vs. EMS Competence Requirements

An important distinction that affects how competence is documented and evaluated: some competence requirements originate in ISO 14001:2015; others originate in environmental regulations; and some apply to both simultaneously. The distinction matters because the evidence requirements and consequences of failure differ:

- ISO 14001:2015 competence requirements (Clause 7.2): failure to meet these produces an EMS audit nonconformance. Remedied through the corrective action process. Consequence: finding at surveillance audit.
- Regulatory competence obligations (RCRA training, SPCC qualified individual): failure to meet these is a regulatory violation. Remedied through corrective action AND potentially through self-disclosure to the regulatory authority. Consequence: regulatory enforcement exposure in addition to EMS finding.
- Requirements that are both (RCRA training for personnel managing hazardous waste): must meet both the ISO 14001 competence evidence standard AND the RCRA training content and frequency requirements. A RCRA training record that demonstrates competence for EMS purposes may not satisfy RCRA requirements if it does not cover the specific RCRA-required content.

Cascade's approach: Marcus Webb maintains a regulatory training matrix alongside the EMS competence matrix — a separate document that tracks specifically regulatory training obligations (RCRA training, SPCC training, right-to-know training) with their specific regulatory content requirements, required frequencies, and documentation standards. This matrix is treated as a compliance obligations register entry (Clause 6.1.3) and is evaluated in the compliance evaluation (Clause 9.1.2) — ensuring that regulatory training obligations receive the same systematic management as permit conditions.

Clause 7.3 — Awareness: Moving Beyond Policy Acknowledgement

Standard Requirement

ISO 14001:2015, Clause 7.3: "Persons doing work under the organization's control shall be aware of: a) the environmental policy; b) the significant environmental aspects and related actual or potential environmental impacts associated with their work; c) their contribution to the effectiveness of the environmental management system, including the benefits of improved environmental performance; d) the implications of not conforming with the environmental management system requirements, including not fulfilling the organization's compliance obligations."

Awareness as a Measurable Outcome, Not a Training Event

The most important conceptual shift in approaching Clause 7.3 effectively is moving from awareness as an event (training was delivered) to awareness as a measurable outcome (workers demonstrate the required understanding). ISO 14001:2015 Clause 7.3 uses the word "aware" — it does not say "shall have received training about." Awareness is a state of understanding; training is one mechanism for producing that state. The audit question is whether the state has been achieved, not whether the mechanism was applied.

This distinction requires a different approach to verifying awareness than simply checking training attendance records. Awareness verification must include some form of evidence that the target population actually understands what they were trained about. The minimum viable approach: supervisor verification (documented supervisor observation that workers demonstrate the awareness elements in daily practice); spot interview sampling (the EHS Manager or internal auditor periodically interviews workers to verify retention of key awareness elements); corrective action trend analysis (environmental incidents or near-misses that reveal awareness failures trigger investigation of whether the failure reflects a systemic gap in awareness rather than an isolated individual failure).

The Four Awareness Elements — Depth Analysis

Awareness Element	What Genuine Awareness Looks Like and How to Verify It
(a) The environmental policy	Genuine awareness: a worker can describe the organization's environmental commitments in their own words and connect them to something specific in their work. Not: "We have an environmental policy" or recitation of the policy text. Test question: "In your own words, what does Cascade commit to in its environmental policy?" Adequate answer from a coating operator: "We commit to controlling our VOC emissions, complying with all our environmental permits, and improving our environmental performance over time." Not adequate: "We commit to environmental responsibility and continuous improvement" (too generic; could describe any organization).
(b) Significant environmental aspects relevant to their work	Genuine awareness: a worker can identify the significant environmental aspects associated with their specific work activities and describe the environmental impact those aspects can cause. Not:

Awareness Element	What Genuine Awareness Looks Like and How to Verify It
	generic awareness that the facility has environmental impacts. Test question: "Tell me about the environmental aspects of your specific job — what environmental impacts does your work create?" Adequate answer from a pre-treatment technician: "The main environmental aspect in my area is the wastewater we discharge. If the pH or metal concentrations aren't within the permit limits, we could contaminate the municipal wastewater system and potentially cause harm to downstream water quality. That's why I monitor and record the pre-treatment parameters every shift." Not adequate: "We care about the environment and try to be careful."
(c) Their contribution to EMS effectiveness	Genuine awareness: a worker can describe specifically how their daily actions affect whether the EMS is effective — and particularly, how accurate execution of their environmental tasks contributes to the organization's environmental performance and compliance. Not: "I do my part for the environment." Test question: "How does your daily work specifically affect Cascade's environmental performance and compliance?" Adequate answer from a coating operator: "When I complete the daily emission log accurately with the VOC content of every material I use, Marcus can calculate our monthly emission total and confirm we're within our PSCAA permit limit. If I leave a field blank, we can't calculate accurately — and if we exceed the limit without knowing it, we have a permit violation we don't know about. My log is a regulatory document."
(d) Implications of not conforming	Genuine awareness: a worker understands the specific consequences of failing to follow EMS requirements — both for the organization (regulatory penalties, permit revocation, reputational damage, customer relationship impacts) and potentially for themselves (in cases where individual responsibility for environmental violations is possible under environmental law). Not: "We could get in trouble." Test question: "What would happen if you consistently failed to complete the emission log?" Adequate answer: "If the log isn't completed, we don't have the records we're required to keep under our PSCAA permit. That's a permit violation, not just an internal EMS problem. Marcus would have to report it, and we could face fines. It also affects our ability to show customers we're managing our environmental impact."

Designing for Long-Term Awareness Retention

Initial awareness training at EMS implementation or at employee onboarding addresses the baseline awareness requirement. Maintaining that awareness through the certification cycle — through personnel turnover, operational changes, and the natural decay of training recall over time — requires a sustained program. The most effective long-term awareness approaches embed environmental information in the daily operational environment rather than relying on periodic training events:

- Visual management at work stations: the approved coating materials list at the spray booth, the permit limit posted above the wastewater monitoring instrument, the waste accumulation container requirements posted in the satellite accumulation area. These are not decorative — they are environmental management tools that reduce the cognitive load on workers by making required information immediately available without recall.

- Supervisor environmental integration: supervisors who reference environmental performance in their shift briefings — "today we're at 78% of our monthly VOC calculation; make sure everyone is recording material quantities accurately" — embed environmental awareness in the operational culture rather than segregating it in a separate EMS training program.
- Near-miss and incident communication: when an environmental near-miss or incident occurs, brief all-team communication of what happened, why it matters, and what was done to prevent recurrence reinforces awareness far more effectively than any scheduled training event. Real events connected to real consequences are the most powerful awareness-building experiences.
- Environmental performance visibility: posting monthly environmental performance data — VOC emission calculation results, pre-treatment system compliance status, waste generation totals — in the facility makes environmental performance tangible and shows workers that their collective actions produce measurable outcomes.

Cascade Case Study

Cascade Awareness Verification at Year 1 Surveillance: During the Year 1 surveillance audit facility walkthrough, the registrar auditor stopped to speak with two coating operators and one pre-treatment technician without advance notice or escort preparation. The auditor asked each worker three questions: (1) Can you describe what Cascade commits to in its environmental policy? (2) What is the main environmental aspect of your work area — what environmental impact does your work create? (3) What would happen if you did not complete your daily environmental log accurately? All three workers provided responses that demonstrated genuine awareness — the pre-treatment technician's response was particularly strong, connecting the wastewater permit limits to the municipal treatment system impacts and describing the notification procedure if a parameter exceeded the limit. The auditor noted in the surveillance report: "Operational personnel demonstrate embedded environmental awareness consistent with Clause 7.3 requirements. The connection between specific work tasks and environmental compliance consequences was articulated clearly and without prompting." Marcus Webb attributed this result to two practices: the monthly emission calculation result posted on the spray booth area notice board, and the supervisors' habit of mentioning permit status in weekly team briefings — neither of which was designed as a formal awareness activity.

Clause 7.4 — Communication: Internal and External

Standard Requirement
ISO 14001:2015, Clause 7.4.1 (General): "The organization shall establish, implement and maintain the process(es) needed for internal and external communications relevant to the environmental management system, including: a) on what it will communicate; b) when to communicate; c) with whom to communicate; d) how to communicate; e) who communicates."
Clause 7.4.2 (Internal communication): "The organization shall communicate internally relevant information about the environmental management system among the various levels and functions of the organization, as appropriate, including communicating changes to the environmental management system."
Clause 7.4.3 (External communication): "The organization shall communicate externally relevant information about the environmental management system, as established by the organization's communication process(es) and as required by its compliance obligations. NOTE The organization may communicate information about its environmental impacts and environmental management system voluntarily, including to interested parties who have expressed a desire to have this information."

The Five Communication System Design Questions

Clause 7.4.1 specifies five design questions that the communication process must address. These questions — what, when, with whom, how, and who — are not bureaucratic form-filling requirements. They are the design parameters of a functional communication system. An EMS communication procedure that answers only some of these questions, or answers them vaguely, has not satisfied the clause.

Design Question	EMS Communication Design Considerations
(a) What to communicate	Content decisions include: significant environmental aspects (communicated to persons whose work involves those aspects); environmental policy (communicated to all persons working under organizational control); environmental objectives and performance (communicated to relevant functions); changes to EMS requirements (communicated to all affected parties before changes take effect); compliance status (communicated to management as required by Clause 9.1.2); audit findings (communicated to management and relevant operational functions); environmental incidents and near-misses (communicated to relevant operational and management audiences). The content list should be systematic — not a catalogue of every possible communication, but a defined set of EMS information types with defined communication protocols for each.
(b) When to communicate	Timing decisions include: scheduled communications (management review frequency; annual environmental performance summary to customers; annual compliance evaluation reporting to management); triggered communications (communication of procedure changes before they take effect; communication of incident findings promptly after investigation; communication of significant aspect register changes to affected operational areas); and continuous

Design Question	EMS Communication Design Considerations
	communications (daily environmental performance data available to operational staff through monitoring displays or log systems).
(c) With whom to communicate	Audience mapping includes: all internal audiences (by function and level); specific external audiences (regulatory authorities, customers, community interested parties, waste management contractors, insurers). The audience for each communication type should be defined specifically — not "management" but "CEO and Operations Manager and Production Supervisors" for compliance evaluation results; not "workers" but "all coating operators, pre-treatment technicians, and maintenance staff" for significant aspect communication.
(d) How to communicate	Channel decisions include: regulatory authority communications (formal written correspondence per regulatory protocol); customer communications (email with certificate and performance data; structured sustainability questionnaire responses); internal operational communications (shift briefings, posted visual management information, email for procedure updates); community communications (letter correspondence; participation in public comment processes). The channel selection should be appropriate to the audience and content — a permit exceedance notification must follow the specific regulatory protocol, not the organization's normal internal email process.
(e) Who communicates	Role assignment: regulatory authority communications — EHS Manager only (ensures authorized and legally defensible representation); customer environmental performance communications — EHS Manager with CEO co-signature for significant communications; internal policy and procedure changes — EHS Manager with supervisor distribution; operational environmental status — Production Supervisors in shift briefings; community communications — CEO (primary) with EHS Manager (technical detail support).

The External Communication Decision — A Required Documented Choice

ISO 14001:2015 Clause 7.4.3 is frequently misread as requiring external environmental communication. It does not. It requires the organization to establish a communication process that addresses external communication, make communication decisions consistent with that process, and honor any external communication obligations within its compliance obligations register. Whether to communicate voluntarily beyond those obligations is the organization's decision to make — and that decision must be documented.

The documented external communication decision must address three questions: what will be communicated externally; to whom; and how. Organizations that decide not to engage in voluntary external environmental communication must document that decision and its rationale — they cannot simply be silent on the question and expect the silence to satisfy Clause 7.4.3.

External Communication Category	Cascade Decision and Approach
Mandatory regulatory communications	Required by compliance obligations. Communicated by: EHS Manager. Channel: formal written correspondence per permit and regulatory requirements. Content: permit applications and renewals; annual emissions inventory (PSCAA); annual wastewater discharge report; RCRA biennial report (when due); incident and exceedance notifications per specific regulatory timeframes; regulatory inspection responses. These are not discretionary.
Customer environmental data (voluntary commitment)	Required by commercial agreement with two OEM customers (compliance obligation in MPC-EMS-LEG-001). Communicated by: EHS Manager (data) with CEO cover communication (relationship management). Channel: structured email with performance summary attachment. Content: annual GHG inventory (Scope 1 and 2); ISO 14001 certificate (current); permit compliance status summary; environmental objectives achievement; response to customer sustainability questionnaire. Third OEM customer (Allied Manufacturing Group) added in Year 1 update.
ISO 14001 certification status (voluntary)	Decided by Cascade: communicate to all customers and the market. Rationale: customer-driven requirement originally; competitive advantage post-certification. Method: certificate copy distributed to all active customers with brief cover letter from Jennifer Ramos; certificate posted on Cascade website (with customer permission). Annual update when certificate is renewed.
Community environmental performance (voluntary)	Decided by Cascade: limited community communication. Rationale: Jennifer Ramos opted against a public environmental report until EMS has 2 full years of performance data. Current approach: brief press release to Tacoma media and PSCAA when initial certificate awarded; proactive notification to community organization that has previously engaged in PSCAA permit proceedings. Year 2 decision: Marcus Webb to prepare a one-page community environmental summary (permit compliance summary and objective progress) for distribution to PSCAA and the community organization.
Voluntary public reporting (voluntary)	Decided by Cascade: not at this stage. Decision documented in MPC-EMS-COMM-DEC-001, approved by Jennifer Ramos. Re-evaluated annually at management review. Rationale: committing to public reporting creates accountability obligations not yet ready to discharge with full confidence; Year 2 and 3 performance data will establish the track record needed to support credible public reporting.

Clause 7.5 — Documented Information: Form vs. Function

Standard Requirement

ISO 14001:2015, Clause 7.5.1 (General): "The organization's environmental management system shall include: a) documented information required by this International Standard; b) documented information determined by the organization as being necessary for the effectiveness of the environmental management system."

Clause 7.5.3 (Control of documented information): "Documented information required by the environmental management system and by this International Standard shall be controlled to ensure: a) it is available and suitable for use, where and when it is needed; b) it is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity). For the control of documented information, the organization shall address the following activities, as applicable: distribution, access, retrieval and use; storage and preservation, including preservation of legibility; control of changes (version control); retention and disposition. Documented information of external origin determined by the organization to be necessary for the planning and operation of the environmental management system shall be identified, as appropriate, and controlled."

The Fundamental Documented Information Question: Necessary for Effectiveness

Clause 7.5.1(b) requires documented information that the organization determines is "necessary for the effectiveness of the environmental management system." This phrase — "necessary for effectiveness" — is the most important principle in EMS documentation design, and the one most frequently ignored. The standard does not require documentation for its own sake. It requires documentation to the extent that it enables the EMS to function effectively.

The test for whether a document is "necessary for effectiveness" is operational: would the EMS function less effectively without this document? An operational control procedure for a complex process with trained-but-rotating operators that involves regulated emission sources is clearly necessary for effectiveness — without the procedure, operators may not consistently apply the required controls. A procedure documenting how to open and read the daily newspaper is clearly not necessary for effectiveness. Between these extremes lies the real documentation calibration challenge: how much detail is needed for each process to enable consistent, correct execution?

Three factors calibrate the documentation level: the environmental significance of the process (higher significance requires more detailed documentation to ensure consistent control), the complexity of the task (simple, repetitive tasks require less documentation than complex, infrequent tasks), and the stability and experience of the workforce (high-turnover or less-experienced workforces require more detailed documentation than stable, experienced teams).

Common Documented Information Failures in Post-Certification EMS

The most common documented information failures in the post-certification period are maintenance failures — documents that were adequate at certification but have become obsolete or inaccessible through neglect. These are the failures that generate surveillance audit findings:

Failure Mode	How It Occurs and Its EMS Consequence
Procedure revision without training update	An operational procedure is revised — a new permit condition changes a monitoring requirement, or a process change requires a different control sequence. The procedure document is updated and issued, but training of affected personnel on the revised procedure is not documented. The next internal audit or surveillance audit finds that the procedure revision date is more recent than the training records for the operators who use it. Consequence: Clause 7.2 nonconformance (competence in revised procedure not demonstrated) and potentially Clause 7.5 nonconformance (if the training record is the required evidence of controlled change communication).
External permit not in document control	Environmental permits are replaced, renewed, or amended outside the EMS document control system. The compliance obligations register references PSCAA Permit Condition 4.5, but the permit in the document control system is the prior version — a version issued three years ago. The procedure referencing Condition 4.5 may be based on the old condition language, not the current permit. Consequence: Clause 7.5.3 nonconformance (external document not controlled); potentially Clause 6.1.3 nonconformance (compliance obligations register not current); potentially Clause 8.1 nonconformance (operational control based on outdated permit condition).
Records not retained per schedule	Environmental monitoring records, training records, or compliance evaluation records are not retained for the period specified in the retention schedule. The most common cause: records stored in a physical filing system that is purged periodically, or electronic records in a system that does not enforce retention rules. Discovered at surveillance audit when auditor requests monitoring records from a specific period and the records are not available. Consequence: Clause 7.5.3 nonconformance; potentially Clause 9.1.2 nonconformance if the missing records are compliance evaluation evidence.
Documented information not accessible at point of use	The approved coating materials list is a controlled document in the SharePoint EMS library — but the coating operators do not have tablets or computers at the spray booths, and the physical copy posted at each booth has not been updated when the list was revised. Operators are working from an outdated approved list. Consequence: Clause 7.5.3 nonconformance (controlled information not available where and when needed); potentially Clause 8.1 nonconformance (operational control compromised by inaccessible current information).
Version control not enforced	Multiple versions of a procedure circulate simultaneously — some operators have a printed Rev. 1 from 18 months ago; the SharePoint system shows Rev. 3 as current. There is no

Failure Mode	How It Occurs and Its EMS Consequence
	mechanism preventing use of the superseded version. Consequence: Clause 7.5.3 nonconformance; operations may be conducted to requirements that are no longer current.

The Living Document Control System — Maintenance Disciplines

An EMS document control system that was properly configured at certification will become a source of findings within two years if not actively maintained. The maintenance disciplines that preserve document control system integrity through the certification cycle:

- Document revision trigger protocol: define the specific events that trigger a document revision review — permit renewal; regulatory change; operational change; internal audit finding; management review decision. When a trigger event occurs, the Management Representative evaluates whether any controlled documents must be updated and initiates the revision process.
- Access point audit: annually confirm that all physical and electronic access points for controlled documents are displaying the current version. This is particularly important for point-of-use materials (work instructions at work stations, approved lists at operating areas) that may not automatically update when the document control system is revised.
- External document currency review: annually confirm that all external documents in the control system — permits, regulatory references, customer environmental requirements — are still current versions. Regulatory references change; permits are renewed and amended; customer requirements are updated. An annual external document review prevents the document control system from silently diverging from the current regulatory environment.
- Retention schedule enforcement: configure the document management system to enforce retention rules where technically possible, and conduct an annual review of physical records to verify that records due for disposition have been properly processed and that records within their retention period are intact.

Cascade Document Control — Year 2 Maintenance Review

At the Year 1 management review (Month 12 post-certification), Marcus Webb presented the results of the first annual document control maintenance review. The review covered: all 28 controlled EMS documents checked for currency against current operations and regulatory requirements; all three permits checked for current version in the document control system; physical access points (booth materials lists, hazardous waste area postings) verified against current electronic versions; retention schedule compliance for the first year of EMS operation.

Review Finding	Action Required	Status
State Waste Discharge Permit: new version issued by Ecology as part of permit renewal process — document control system had prior version. New version includes two changed monitoring requirements.	Update document control system with current permit. Review compliance obligations register Section B for affected conditions. Update monitoring procedure MPC-EMS-PRO-008 if monitoring requirements changed. Train affected personnel.	Complete — Month 13. Permit updated in system; two Section B entries revised; MPC-EMS-PRO-008 Rev. 2 issued; 2 pre-treatment technicians trained on revised monitoring requirements.

Review Finding	Action Required	Status
MPC-EMS-WI-001 (Spray Booth Pre-Operation Inspection Checklist): physical booth copies at Booths 2 and 4 were Rev. 1 (original); current version is Rev. 2 (updated after Month 3 internal audit finding). Two operators confirmed they have been using Rev. 1 checklist.	Replace all physical booth copies with current Rev. 2. Confirm that the control mechanism for physical copies includes a scheduled replacement requirement when revisions occur.	Complete — immediate. Physical copies replaced same day. Document control procedure (MPC-EMS-PRO-014) updated to include physical copy replacement confirmation step in the revision process.
MPC-EMS-ASP-001 (Aspects Register): review confirmed register is current for current operations. No aspect categories affected by Ecology permit revision.	No action required. Register confirmed current.	No action.
Year 1 monitoring records: all daily emission logs, pre-treatment monitoring records, and hazardous waste inspection logs for Year 1 confirmed present, legible, and stored per retention schedule (5-year minimum). No gaps identified.	No action required. Records confirmed complete.	No action.

The document control maintenance review findings were reported at the management review. Jennifer Ramos noted: "The fact that two operators were using an outdated checklist for several months without anyone noticing is the kind of thing that could create a compliance gap we'd only find out about at a regulatory inspection. Good catch." The physical copy replacement confirmation step added to MPC-EMS-PRO-014 was implemented as a direct result of this management review discussion — demonstrating the Clause 10.3 continual improvement loop between performance evaluation and system improvement.

Quick Reference: Clause 7 Audit Readiness

Most Common Clause 7 Audit Findings

Finding Area	Clause	Typical Finding Statement
Training attendance equals competence	7.2	Competence matrix for coating operators shows "C — Competent" for PSCAA permit VOC limit knowledge. Supporting records consist of attendance sheets for a 90-minute awareness training session conducted at EMS implementation. The training record contains no assessment of knowledge retention or ability to apply permit requirements in daily operations. Clause 7.2(b) requires competence to be demonstrated on the basis of education, training, or experience — attendance at training is evidence that training was delivered, not that competence was achieved.
Competence matrix not updated for role change	7.2	Three maintenance technicians were reassigned to the pre-treatment area six months ago. The competence matrix continues to show them in their prior maintenance roles with maintenance-area competence requirements. Their current role in the pre-treatment area requires competence in State Waste Discharge Permit monitoring requirements, pH and metals limit awareness, and pre-treatment system emergency response procedures. None of these competence requirements appear in their competence records, and no training has been conducted for the new role requirements.
Awareness not verified beyond training attendance	7.3	All employees are documented as having completed Tier 1 EMS awareness training at EMS implementation and an annual refresher. During facility walkthrough, three of five workers interviewed were unable to identify any significant environmental aspect associated with their specific work area. One worker was unaware that a daily environmental log was required for their process, though the log was confirmed as a permit requirement. Training delivery is documented; retention of training content is not demonstrated.
External communication decision undocumented	7.4	The organization has not made or documented a decision about external environmental communication beyond regulatory mandatory reporting. The EMS communication procedure (MPC-EMS-PRO-013) describes internal communication channels and regulatory reporting obligations but does not address the organization's decision regarding voluntary external communication about its significant environmental aspects, EMS certification status, or environmental performance. Clause 7.4.3 requires the organization to establish communication processes that include external communication; the absence of a documented decision on voluntary external communication leaves the process incomplete.

Finding Area	Clause	Typical Finding Statement
Permit not in document control	7.5.3.2	The compliance obligations register references PSCAA Air Quality Permit conditions. The document control master register (MPC-EMS-DCR-001) does not include the PSCAA permit as a controlled external document. Review of the SharePoint EMS document library confirms that no current permit copy is stored there. The operational procedure MPC-EMS-PRO-001 references specific permit condition numbers, but the permit itself is not accessible through the EMS document system. External documents of external origin that are necessary for EMS planning and operation must be identified and controlled.
Point-of-use documents outdated	7.5.3	The approved coating materials list is maintained as a controlled document in the EMS SharePoint library (MPC-EMS-AML-001, Rev. 3). Physical copies posted at Spray Booths 2 and 4 are Rev. 1, dated 16 months ago. Two coating materials approved in the Revision 2 update (10 months ago) appear on the SharePoint version but not on the booth copies. Clause 7.5.3(a) requires documented information to be available and suitable for use where and when it is needed. The booth copies are the point-of-use document; the current version is not available at the point of use.
Record retention gaps	7.5.3	The organization’s record retention schedule specifies 5-year retention for PSCAA emission monitoring records. Review of daily emission control logs requested for the period 28 to 36 months prior to audit identified that logs for an 11-week period are not available. The EHS Manager confirmed that a filing system reorganization approximately 2 years ago resulted in records from that period being discarded before the scheduled retention period ended.

Next in Volume 2: Guide 2.4 — Clause 8: Operation. The operational planning and control clause examined in depth: the hierarchy of environmental controls and how the standard's Note 1 on engineering vs. administrative controls shapes EMS design; operational planning at the process level and life cycle perspective in purchasing decisions; emergency preparedness and response beyond the written plan; and the change management requirement that connects operational change to EMS integrity across the certification cycle.